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TABLES OF ASCENDANTS

ON

NIRAYANA BASIS

FOR

All Latitudes from 0° to 60° North

(As well as for Southern Latitudes)

N. C. LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA

TABLES OF ASCENDANTS
ON
NIRAYANA BASIS

FOR

All latitudes from 0° to 60° North

(As well as for Southern latitudes)

With the method of construction of the tables and the different houses according to the various systems of division

(Sixth Edition)

BY

NIRMAL CHANDRA LAHIRI, M.A.

Gaṇitacarya, Gaṇitakalanidhi.

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PREFACE TO THE FIRST EDITION

In presenting to the public another volume containing tables of ascendants and of some of the houses, when there are already others in the market, I feel it my duty to apologize to my readers. As all the published tables are on the *sāyana* basis, the students of the *nirayana* system of astrology were really in need of a *nirayana* equivalent of those tables, and the present endeavour is only to meet this demand.

The astrologers of Indian school are generally concerned with only the ascendant and the tenth house. In order to facilitate their work, exhaustive tables of ascendants at short intervals of latitude have been given. For critical students tables have been appended for finding the other houses according to the widely prevalent semi-arc system, and methods have been given for finding the different houses according to other systems also.

Attempts have been made to explain the methods of construction of the tables by furnishing formulas and other necessary data, although that is not exactly the function of the compiler of such a table.

It is regretted that as the latitude and longitude of foreign cities could not be verified from any later publication until the main body of the work had been printed, some erroneous fiigures of latitude got printed in the book. These have however, been duly entered in the errata list. In many cases the co-ordinates of foreign cities as given in the relevant table relate to those of observatories situated in those cities. In case of Indian cities the elements have been taken from the Survey of India Map and as such they may be considered as fairly accurate.

The present high cost of production has prevented me from fixing a lower price as contemplated at the time of undertaking the work.

ASTRO-RESEARCH BUREAU
CALCUTTA
September. 30, 1947

N. C. LAHIRI

PREFACE TO THE SECOND EDITION

This edition is simply a reprint of the book in its original form. The misprint of the first edition have been corrected as far as could be detected.

CALCUTTA
The 5th July, 1955.

N. C. LAHIRI

PREFACE TO THE THIRD EDITION

The present edition is only a reprint of the book.

CALCUTTA
5th May. 1963

N. C. LAHIRI

PREFACE TO THE FOURTH EDITION

In this edition two new tables have been added facilitating study of the variation of the ascendant for latitudes higher than 60°, and of the duration of the same for certain cities in India. The tables of principal cities, both Indian and foreign, have also been expanded.

CALCUTTA
June 3, 1969.

N. C. LAHIRI

PRFFACE TO THE FIFTH EDITION

This edition is a reprint of the previous one with corrections of misprints and minor errors. The tables of principal cities have been thoroughly revised and expanded.

17, Brindaban Mullick 1st Lane,
Calcutta-700009.
April 15, 1975.

N. C. LAHIRI

724075

PREFACE TO THE SIXTH EDITION

The present edition is only a reprint of the book.

CALCUTTA
December 4, 1979.

N. C. LAHIRI

847079

A CAUTION

The readers are cautioned that the local mean time *of the place should invariably be used in finding the sidereal time of the moment from which the ascendant, the tenth house and other houses are determined. Any sort of standard time or local apparent time should not be used for this purpose.*

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CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time her own, while the Panchangs used to indicate the local apparent ime for many years. Any such recorded local mean time of the ity can easily be converted into the Indian Standard Time of present y usage when the longitude of the place is known.

Standard time = Local time − 4 (E. Long.—82° 30′) mins. of time.
or = Local time + 4 (82° 30′ − E. Long.) mins. of time.

Afterwards old Railway time, the same as the local time of ladras ($5^h 21^m$ ahead of G.M.T.) began to come into usage. Many mall cities, particularly outside Bengal, gradually adopted this time or civil purposes also. This old Railway time can be converted nto the present I.S.T. by the *adition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of reenwich mean time was adopted for the Railway and Postal rganisations. Cities using old Railway time adopted this Standard ime from that date. But Calcutta and many places in Bengal and some laces of the adjacent provinces including some big cities of other tates continued to maintain the local time instead of the standard time ip to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October, 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should herefore be reduced by 1 hour to obtain I.S.T. From 1st Sept. 1947, Indian Standard Time was introduced all over India. Other hanges of timings during the war period and afterwards are noted below :—

			Reduction to I.S.T.
In Calcutta ...	before 1st Oct., 1941 ...	Calcutta time	—0*h* 23*m*
In whole of Bengal from	1-10-41 to 14-5-42 ...	Bengal time	—1*h* 0*m*
" " "	15-5-42 to 31-8-42 ...	I. S. T.	0*h* 0*m*
" " "	1-9-42 to 31-8-47 ...	Bengal time	—1*h* 0*m*
In West Bengal since 1st	September, 1947 ...	I.S.T.	0*h* 0*m*

In West Bengal since 1st September, 1947 ... I.S.T. 0*h* 0*m*

Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45 and Bihar from 1-12-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time (otherwise I.S.T) ... ... —1*h* 0*m*

ast Pakistan observed Bengal time for civil purposes and Pakistan standard time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51. From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30*m* more than I.S.T. and West Pakistan (now Pakistan) standard time is 30*m* less than I.S.T.

USE OF THE TABLES ILLUSTRATED

Example 1—Required to find the Ascendant and the Tenth house at Calcutta for 3-55 P.M. (Bengal time) on the 12th June, 1947.

The time is equivalent to 2-55 P.M. I.S.T. which converted by the local time correction for Calcutta, *viz*, +23*m* 30*s* (*vide* table at the end of the book) gives the local time of the moment as 3*h* 18*m* 30*s* P.M. The latitude of Calcutta is 22° 35′ North.

Now it is required to find the sidereal time for this moment. From tables on page 2 *et seq.*—

Sid. Time for June 12	=	5*h* 20*m* 31*s*
Correction for 1947	(−)	1 31
∴ S.T. for June 12, 1947 (noon)	=	5 19 00
Correction for Calcutta ...	(−)	0 04
∴ S.T. same date Calcutta noon	=	5 18 56

This sidereal time could have also been obtained from the 'Indian Ephemeris' for 1947, or from such other yearly publications. The result in that case might not have differed by more than 1 or 2 secs. which is negligible for all practical purposes.

The given local time of the epoch is 3*h* 18*m* 30*s* after the noon, This time interval having been increased by the correction given in Table IV (page 5) *viz.* by 33*s*, we get 3*h* 19*m* 3*s*.

S.T. for Calcutta noon	=	5*h* 18*m* 56*s*
Corrected time-interval	=(+)	3 19 03
∴ Sid. time for the epoch	=	8*h* 37*m* 59*s*

With this sidereal time we have to enter the table of Ascendants for the place *viz.*, Calcutta as given on page 36. Against 8*h* 36*m*, we get the ascendant as 6ˢ 12° 37′. Variation in 4 mins. as obtained from two successive values is 54′ (*i.e.* 13° 31′ *minus* 12° 37′). Hence from the proportional tables at the bottom of the pages 36 and 37, we get the Variation for 1 min. as 13′, and hence for 59 secs. as 13′ approximately. So the total Variation for 1*m* 59*s* is 26′ approx. (By actual calculation the proportionate variation for 1*m* 59*s* is obtained as 26′·8, but the above approximate value of 26′ will serve all practical purposes).

For S.T. 8*h* 36*m*, the Ascendant	=	6ˢ 12° 37′
Variation for 1*m* 59*s*	=	26
Hence for S.T. 8*h* 37*m* 59*s*, Ascendant	=	6 13 03
Now from page 6, the *Ayanamsa* correction for 1947 is		(−) 0 08
Hence the required Ascendant	=	6ˢ 12° 55′

i.e. the Ascendant is 12° 55′ of the *nirayaṇa* sign *Tulā* (6ˢ represents the sign *Tulā*).

If the tropical or *sāyana* longitude of the Ascendant is required, we have to add 23° to the value 6ˢ 13° 3′ before application of Ayanamsa correction and get 7ˢ 6° 3′, *i.e.* tropical Scorpio 6° 3′.

Similarly from the table of the tenth house (M.C.) as given on page 8 or 80, we get –

For S.T. 8*h* 36*m*, the M.C.	=	3^s 13°·37′
Here Variation for 4 min. is 58′		
hence prop. Var. for 1*m* 59*s*	=	29
		3^s 14° 6′
Ayanamsa correction	(−)	0 8
		3^s 13° 58′

So the *Nirayaṇa* Tenth House or M.C. is 13° 58′ of the sign *Karkaṭa.*

Example 2—Find the Ascendant at a place on latitude 16° 43′N. longitude 74° 14′ E. Time is 4-00 A.M. I.S.T. on 13th April, 1908.

From the longitude of the place we find the correction to the I.S.T. to obtain the local mean time (L.M.T.) as

4 × (74° 14′ − 82° 30′) mins. = 4 × (−8° 16′) mins. of time = −33*m* 4*s*.

Hence L.M.T. of the moment is 4*h* 0*m* − 33*m* 4^s = 3*h* 26*m* 56^s A.M.

From the above correction we also find the correction to the sidereal time for the place as +6 *secs.*, which is at the rate of 1 sec. per 6 mins. of the above local time correction (with the sign reversed).

Had the recorded time been the L.M.T. of the place, the above correction would not at all have been necessary and we could have proceeded with the time 4-0 A.M. in ascertaining the sidereal time of the moment.

Let us now find the sidereal time for the epoch.

S.T. on April 13, noon	=	1*h* 23*m* 57^s
Correction for 1908	= (+)	0 14
		1*h* 24*m* 11*s*
Corr. for the place (as obtained above)	(+)	6
∴ S.T. same date noon of the place	=	1*h* 24*m* 17*s*

The L.M.T. is 3*h* 26*m* 56*s* A.M., which is 8*h* 33*m* 4*s* *before* the noon of that date. This time interval increased by 10 secs. per hour (Table IV, page 5) becomes 8*h* 33*m* 4*s* + 1*m* 25*s* = 8*h* 34*m* 29*s*.

S.T. at noon	=	1*h* 24*m* 17*s*
Corrected time interval (before noon)	= (−)	8 34 29
∴ Sid. time for the epoch	=	16*h* 49*m* 48*s*

We have now to find the Ascendant with this sidereal time. As the latitude of the place is 16° 43′ N, we shall have to make use of the table for lat. 17° 0′ N (page 25) which is nearest to the latitude of the place.

For S.T. 16*h* 48*m*, the Ascendant	=	10^s 14° 38′
Prop. variation for 1*m* 48*s*		33
∴ For S.T. 16*h* 49*m* 48*s*, the Asc.	=	10 15 11
Ayanamsa correction for 1908	= (+)	0 25
		10^s 15° 36′

Hence the Ascendant is Kumbha 15° 36′

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SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	JAN.		FEB.		APRIL		MAY		JULY
	h m s		*h m s*		*h m s*		*h m s*		*h m s*
1	18 41 48	16	21 43 10	1	0 36 39	17	3 38 0	1	6 35 25
2	18 45 45	17	21 47 7	2	0 40 35	18	3 41 56	2	6 39 22
3	18 49 42	18	21 51 3	3	0 44 32	19	3 45 53	3	6 43 18
4	18 53 38	19	21 55 0	4	0 48 28	20	3 49 50	4	6 47 15
5	18 57 35	20	21 58 56	5	0 52 25	21	3 53 46	5	6 51 11
6	19 1 31	21	22 2 53	6	0 56 21	22	3 57 43	6	6 55 8
7	19 5 28	22	22 6 49	7	1 0 18	23	4 1 39	7	6 59 4
8	19 9 24	23	22 10 46	8	1 4 14	24	4 5 36	8	7 3 1
9	19 13 21	24	22 14 43	9	1 8 11	25	4 9 33	9	7 6 58
10	19 17 18	25	22 18 39	10	1 12 8	26	4 13 29	10	7 10 54
11	19 21 14	26	22 22 36	11	1 16 4	27	4 17 26	11	7 14 51
12	19 25 11	27	22 26 32	12	1 20 1	28	4 21 22	12	7 18 47
13	19 29 7	28	22 30 29	13	1 23 57	29	4 25 19	13	7 22 44
14	19 33 4	29	22 34 25	14	1 27 54	30	4 29 15	14	7 26 40
15	19 37 0		MAR.	15	1 31 50	31	4 33 12	15	7 30 37
16	19 40 57	1	22 34 25	16	1 35 47		JUNE	16	7 34 33
17	19 44 53	2	22 38 22	17	1 39 43	1	4 37 8	17	7 38 30
18	19 48 50	3	22 42 18	18	1 43 40	2	4 41 5	18	7 42 27
19	19 52 47	4	22 46 15	19	1 47 37	3	4 45 2	19	7 46 23
20	19 56 43	5	22 50 12	20	1 51 33	4	4 48 58	20	7 50 20
21	20 0 40	6	22 54 8	21	1 55 30	5	4 52 55	21	7 54 16
22	20 4 36	7	22 58 5	22	1 59 26	6	4 56 51	22	7 58 13
23	20 8 33	8	23 2 1	23	2 3 23	7	5 0 48	23	8 2 9
24	20 12 29	9	23 5 58	24	2 7 19	8	5 4 44	24	8 6 6
25	20 16 26	10	23 9 54	25	2 11 16	9	5 8 41	25	8 10 2
26	20 20 22	11	23 13 51	26	2 15 12	10	5 12 37	26	8 13 59
27	20 24 19	12	23 17 47	27	2 19 9	11	5 16 34	27	8 17 56
28	20 28 16	13	23 21 44	28	2 23 6	12	5 20 31	28	8 21 52
29	20 32 12	14	23 25 41	29	2 27 2	13	5 24 27	29	8 25 49
30	20 36 9	15	23 29 37	30	2 30 59	14	5 28 24	30	8 29 45
31	20 40 5	16	23 33 34		MAY	15	5 32 20	31	8 33 42
	FEB.	17	23 37 30	1	2 34 55	16	5 36 17		AUG.
1	20 44 2	18	23 41 27	2	2 38 52	17	5 40 13	1	8 37 38
2	20 47 58	19	23 45 23	3	2 42 48	18	5 44 10	2	8 41 35
3	20 51 55	20	23 49 20	4	2 46 45	19	5 48 6	3	8 45 31
4	20 55 51	21	23 53 16	5	2 50 41	20	5 52 3	4	8 49 28
5	20 59 48	22	23 57 13	6	2 54 38	21	5 56 0	5	8 53 25
6	21 3 45	23	0 1 10	7	2 58 35	22	5 59 56	6	8 57 21
7	21 7 41	24	0 5 6	8	3 2 31	23	6 3 53	7	9 1 18
8	21 11 38	25	0 9 3	9	3 6 28	24	6 7 49	8	9 5 14
9	21 15 34	26	0 12 59	10	3 10 24	25	6 11 46	9	9 9 11
10	21 19 31	27	0 16 56	11	3 14 21	26	6 15 42	10	9 13 7
11	21 23 27	28	0 20 52	12	3 18 17	27	6 19 39	11	9 17 4
12	21 27 24	29	0 24 49	13	3 22 14	28	6 23 35	12	9 21 0
13	21 31 20	30	0 28 45	14	3 26 10	29	6 27 32	13	9 24 57
14	21 35 17	31	0 32 42	15	3 30 7	30	6 31 29	14	9 28 54
15	21 39 14			16	3 34 4			15	9 32 50

Sidereal Time : Table I—*contd.*

Date	Sid. Time
	August
	h m s
16	9 36 47
17	9 40 43
18	9 44 40
19	9 48 36
20	9 52 33
21	9 56 29
22	10 0 26
23	10 4 23
24	10 8 19
25	10 12 16
26	10 16 12
27	10 20 9
28	10 24 5
29	10 28 2
30	10 31 58
31	10 35 55
	SEPT.
1	10 39 52
2	10 43 48
3	10 47 45
4	10 51 41
5	10 55 38
6	10 59 34
7	11 3 31
8	11 7 27
9	11 11 24
10	11 15 21
11	11 19 17

Date	Sid. Time
	Sept.
	h m s
12	11 23 14
13	11 27 10
14	11 31 7
15	11 35 3
16	11 39 0
17	11 42 56
18	11 46 53
19	11 50 50
20	11 54 46
21	11 58 43
22	12 2 39
23	12 6 36
24	12 10 32
25	12 14 29
26	12 18 25
27	12 22 22
28	12 26 19
29	12 30 15
30	12 34 12
	OCT.
1	12 38 8
2	12 42 5
3	12 46 1
4	12 49 58
5	12 53 54
6	12 57 51
7	13 1 48
8	13 5 44

Date	Sid. Time
	Oct.
	h m s
9	13 9 41
10	13 13 37
11	13 17 34
12	13 21 30
13	13 25 27
14	13 29 23
15	13 33 20
16	13 37 16
17	13 41 13
18	13 45 10
19	13 49 6
20	13 53 3
21	13 56 59
22	14 0 56
23	14 4 52
24	14 8 49
25	14 12 45
26	14 16 42
27	14 20 39
28	14 24 35
29	14 28 32
30	14 32 28
31	14 36 25
	NOV.
1	14 40 21
2	14 44 18
3	14 48 14
4	14 52 11

Date	Sid. Time
	Nov.
	h m s
5	14 56 8
6	15 0 4
7	15 4 1
8	15 7 57
9	15 11 54
10	15 15 50
11	15 19 47
12	15 23 43
13	15 27 40
14	15 31 37
15	15 35 33
16	15 39 30
17	15 43 26
18	15 47 23
19	15 51 19
20	15 55 16
21	15 59 12
22	16 3 9
23	16 7 6
24	16 11 2
25	16 14 59
26	16 18 55
27	16 22 52
28	16 26 48
29	16 30 45
30	16 34 41
	DEC.
1	16 38 38

Date	Sid. Time
	Dec.
	h m s
2	16 42 35
3	16 46 31
4	16 50 28
5	16 54 24
6	16 58 21
7	17 2 17
8	17 6 14
9	17 10 10
10	17 14 7
11	17 18 4
12	17 22 0
13	17 25 57
14	17 29 53
15	17 33 50
16	17 37 46
17	17 41 43
18	17 45 39
19	17 49 36
20	17 53 33
21	17 57 29
22	18 1 26
23	18 5 22
24	18 9 19
25	18 13 15
26	18 17 12
27	18 21 8
28	18 25 5
29	18 29 2
30	18 32 58
31	18 36 55

Table II—Correction for different years

(To be applied to the result of Table I above)

Year	Correction	Year	Correction	Year	Correction	Year	Correction	Year	Correction
	m s		m s		m s		m s		m s
1800	+0 52	1810	−0 47	1820*	−2 27	1829	+0 47	1839	−0 53
1801	−0 5	1811	−1 45	1820†	+1 29	1830	−0 10	1840*	−1 50
1802	−1 2	1812*	−2 42	1821	+0 32	1831	−1 8	1840†	+2 6
1803	−1 59	1812†	+1 14	1822	−0 25	1832*	−2 5	1841	+1 9
1804*	−2 57	1813	+0 17	1823	−1 28	1832†	+1 51	1842	+0 12
1804†	+1 0	1814	−0 40	1824*	−2 20	1833	+0 54	1843	−0 46
1805	+0 3	1815	−1 37	1824†	+1 36	1834	−0 3	1844*	−1 43
1806	−0 55	1816*	−2 35	1825	+0 39	1835	−1 0	1844†	+2 13
1807	−1 52	1816†	+1 22	1826	−0 18	1836*	−1 58	1845	+1 16
1808*	−2 49	1817	+0 25	1827	−1 15	1836†	+1 59	1846	+0 19
1808†	+1 7	1818	−0 33	1828*	−2 12	1837	+1 2	1847	−0 38
1809	+0 10	1819	−1 30	1828†	+1 44	1838	+0 4	1848*	−1 36

* For January & February only.

† For March to December.

Sidereal Time : Table II—*contd.*

Year	Correction	Year	Correction	Year	Correction	Year	Correction	Year	Correction
	m s		m s		m s		m s		m s
1848†	+2 21	1879	+0 21	1910	−1 40	1940†	+1 13	1971	−0 47
1849	+1 24	1880*	−0 37	1911	−2 38	1941	+0 16	1972*	−1 44
1850	+0 26	1880†	+3 20	1912*	−3 35	1942	−0 41	1972†	+2 13
1851	−0 31	1881	+2 23	1912†	+0 22	1943	−1 38	1973	+1 15
1852*	−1 28	1882	+1 25	1913	−0 36	1944*	−2 36	1974	+0 18
1852†	+2 28	1883	+0 28	1914	−1 33	1944†	+1 21	1975	−0 39
1853	+1 31	1884*	−0 29	1915	−2 30	1945	+0 24	1976*	−1 36
1854	+0 34	1884†	+3 27	1916*	−3 27	1946	−0 34	1976†	+2 20
1855	−0 24	1885	+2 30	1916†	+0 29	1947	−1 31	1977	+1 23
1856*	−1 21	1886	+1 33	1917	−0 28	1948*	−2 28	1978	+0 25
1856†	+2 36	1887	+0 36	1918	−1 25	1948†	+1 28	1979	−0 32
1857	+1 38	1888*	−0 22	1919	−2 23	1949	+0 31	1980*	−1 29
1858	+0 41	1888†	+3 35	1920*	−3 20	1950	−0 26	1980†	+2 28
1859	−0 16	1889	+2 38	1920*	+0 37	1951	−1 24	1981	+1 30
1860*	−1 13	1890	+1 40	1921	−0 21	1952*	−2 21	1982	+0 33
1860†	+2 43	1891	+0 43	1922	−1 18	1952†	+1 36	1983	−0 25
1861	+1 46	1892*	−0 14	1923	−2 15	1953	+0 38	1984*	−1 22
1862	+0 49	1892*	+3 42	1924*	−3 12	1954	−0 19	1984†	+2 35
1863	−0 9	1893	+2 45	1924†	+0 44	1955	−1 16	1985	+1 37
1864*	−1 6	1894	+1 48	1925	−0 13	1956*	−2 13	1986	+0 40
1864†	+2 50	1895	+0 50	1926	−1 11	1956†	+1 43	1987	−0 17
1865	+1 53	1896*	−0 7	1927	−2 8	1957	+0 46	1988*	−1 14
1866	+0 56	1896†	+3 49	1928*	−3 5	1958	−0 12	1988†	+2 42
1867	−0 1	1897	+2 52	1928†	+0 51	1959	−1 9	1989	+1 45
1868*	−0 59	1898	+1 55	1929	−0 6	1960*	−2 6	1990	+0 47
1868†	+2 58	1899	+0 57	1930	−1 3	1960†	+1 51	1991	−0 10
1869	+2 1	1900	−0 0	1931	−2 1	1961	+0 53	1992*	−1 7
1870	+1 3	1901	−0 57	1932*	−2 58	1962	−0 4	1992†	+2 50
1871	+0 6	1902	−1 55	1932†	+0 59	1963	−1 2	1993	+1 52
1872*	−0 51	1903	−2 52	1933	+0 1	1964*	−1 59	1994	+0 55
1872†	+3 5	1904*	−3 49	1934	−0 56	1964†	+1 58	1995	−0 3
1873	+2 8	1904†	+0 7	1935	−1 53	1965	+1 0	1996*	−1 0
1874	+1 11	1905	−0 50	1936*	−2 50	1966	+0 3	1996†	+2 57
1875	+0 13	1906	−1 48	1936†	+1 6	1967	−0 54	1997	+1 59
1876*	−0 44	1907	−2 45	1937	+0 9	1968*	−1 51	1998	+1 2
1876†	+3 12	1908*	−3 42	1938	−0 49	1968†	+2 5	1999	+0 5
1877	+2 15	1908†	+0 14	1939	−1 46	1969	+1 8	2000*	−0 52
1878	+1 18	1909	−0 43	1940*	−2 43	1970	+0 10	2000†	+3 5

* For January and February only.
† For March to December.

Table II (a)—Correction for other Centuries.

If the sidereal time for a date before 1800 A D. is required, the following further correction is to be applied to the result obtained from the above tables.

Year for which Sid. time is required	Year to which cor. to be applied	Correction	Year for which Sid. time is required	Year to which cor. to be applied	Correction
		m s			m s
1001—1100 (O.S)	1901—2000	+23 42	1501—1582 (O S)	1901—1982	+38 5
1101—1200 ,,	1901—2000	+26 45	1582—1600 (N S)	1982—20[illegible]	− 0 2
1201—1300 ,,	1901—2000	+29 48	1601—1699 ,,	1901—[illegible]999	+ 2 3
1301—1400 ,,	1901—2000	+32 51	1700—1799 ,,	190[illegible]—1999	+ 1 4
1401—1500 ,,	1901—2000	+35 55	2001—2099 ,,	[illegible]901—1999	+ 0 5

Sidereal Time

Table III—Correction for different localities

To the result obtained from the above tables. the following correction for the longitude of the locality is to be applied. These are at the rate of 0·66 secs. per degree of longitude from the central meridian of India (viz. 82½° E) and positive for west and negative for east. For places in india these corrections are so small as can safely be ignored for ordinary calculations. A detailed table for important places giving latitudes and longitudes along with these corrections will be found at the end of the book. Corrections for a few places are however given below.

Place		Long.	Correction	Place		Long.	Correction
		° ′	*m* *s*			° ′	*m* *s*
Allahabad	...	81 52 E	+ 0 0	Greenwich	...	0 0	+ 0 54
Bangalore	...	77 36 „	+ 0 2	Islamabad	...	73 10 E	+ 0 6
Bangkok	...	100 30 „	− 0 12	Kuala Lampur	...	101 43 „	− 0 13
Bombay	...	72 50 „	+ 0 6	Madras	...	80 15 „	+ 0 1
Calcutta	...	88 23 „	− 0 4	New York	...	74 0 W	+ 1 43
Colombo	...	79 52 „	+ 0 2	Pune	...	73 53 E	+ 0 6
Dacca	...	90 25 „	− 0 5	Rangoon	...	96 10 „	− 0 9
Delhi	...	77 13 E	+ 0 3	Varanasi	...	83 1 E	− 0 0

Table IV—Correction for hours and minutes

The result thus obtained is the sidereal time for 12*h* noon local mean time of the place. The time interval of the given moment from the above noon, *increased by the following correction*, is then to be applied to the above sidereal time for the given moment. When the moment is after the noon, the increased time interval is to be *added* to and when it is before noon, it is to be *subtracted* from the sidereal time for the noon. If the total thus obtained exceeds 24 hours, then 24*h* should be subtracted from it, and where necessary 24*h* may also be added to facilitate subtraction.

CORRECTION TO INCREASE THE TIME INTERVAL

Time	Corr.	Time	Corr.	Time	Corr.	Time	Corr.	Time	Corr.
h	*m* *s*	*h*	*m* *s*	*h*	*m* *s*	*h*	*m* *s*	*m*	*m* *s*
1	+ 0 10	8	+ 1 19	15	+ 2 28	22	+ 3 37	24	+ 0 4
2	0 20	9	1 29	16	2 38	23	3 47	30	0 5
3	0 30	10	1 39	17	2 48	24	+ 3 56	36	0 6
4	0 39	11	1 48	18	2 57	*m*	*m* *s*	42	0 7
5	0 49	12	1 58	19	3 7	6	+ 0 1	48	0 8
6	0 59	13	2 8	20	3 17	12	0 2	54	0 9
7	+ 1 9	14	+ 2 18	21	+ 3 27	18	+ 0 3	60	+ 0 10

EXAMPLE :—Required sidereal time at 6-13 A.M (L. M. T.), given that the sidereal time at noon on that date and place is 22*h* 32*m* 53*s*. The given local time is 5*h* 47*m* before noon. From the above Table IV, the correction to this time interval is 0*m* 57*s*. Hence the increased time interval is 5*h* 47*m* 57*s*. This subtracted from the given sidereal time for noon, we get 16*h* 44*m* 56*s* as the required sidereal time for the moment.

AYANAMSA CORRECTION

(Correction for precession *i.e.* for yearly variation of *ayanamsa*)

After obtaining from the tables the exact value of the Ascendant or the Tenth house (in degrees and mins.) for the given time and place, the following correction for the year in question should be applied to the result.

Year	Correction	Year	Correction	Year	Correction	Year	Correction	Year	Correction
A.D.	° ′	A.D.	° ′	A.D.	° ′	A.D.	° ′	A. D.	° ′
1000	+13 4	1814	+ 1 44	1863	+ 1 3	1912	+ 0 22	1961	− 0 19
1100	11 41	1815	1 43	1864	1 2	1913	0 21	1962	0 20
1200	10 17	1816	1 42	1865	1 1	1914	0 20	1963	0 21
1300	8 54	1817	1 41	1866	1 0	1915	0 19	1964	0 22
1350	8 12	1818	1 41	1867	0 59	1916	0 18	1965	0 23
1400	7 30	1819	1 40	1868	0 59	1917	0 18	1966	0 23
1420	7 13	1820	1 39	1869	0 58	1918	0 17	1967	0 24
1440	6 57	1821	1 38	1870	0 57	1919	0 16	1968	0 25
1460	6 40	1822	1 37	1871	0 56	1920	0 15	1969	0 26
1480	6 23	1823	1 36	1872	0 55	1921	0 14	1970	0 27
1500	6 7	1824	1 35	1873	0 54	1922	0 13	1971	0 28
1520	5 50	1825	1 35	1874	0 54	1923	0 13	1972	0 28
1540	5 33	1826	1 34	1875	0 53	1924	0 12	1973	0 29
1560	5 16	1827	1 33	1876	0 52	1925	0 11	1974	0 30
1580	5 0	1828	1 32	1877	0 51	1926	0 10	1975	0 31
1600	4 43	1829	1 31	1878	0 50	1927	0 9	1976	0 32
1610	+ 4 35	1830	+ 1 30	1879	+ 0 49	1928	+ 0 8	1977	− 0 33
1620	4 26	1831	1 30	1880	0 49	1929	0 8	1978	0 33
1630	4 18	1832	1 29	1881	0 48	1930	0 7	1979	0 34
1640	4 9	1833	1 28	1882	0 47	1931	0 6	1980	0 35
1650	4 1	1834	1 27	1883	0 46	1932	0 5	1981	0 36
1660	3 53	1935	1 26	1884	0 45	1933	0 4	1982	0 37
1670	3 44	1836	1 25	1885	0 44	1934	0 3	1983	0 38
1680	3 36	1837	1 25	1886	0 44	1935	0 3	1984	0 39
1690	3 28	1838	1 24	1887	0 43	1936	0 2	1985	0 39
1700	3 19	1839	1 23	1888	0 42	1937	+ 0 1	1986	0 40
1710	3 11	1840	1 22	1889	0 41	1938	0 0	1987	0 41
1720	3 3	1841	1 21	1890	0 40	1939	− 0 1	1988	0 42
1730	2 54	1842	1 20	1891	0 39	1940	0 2	1989	0 43
1740	2 46	1843	1 20	1892	0 39	1941	0 2	1990	0 44
1750	2 37	1844	1 19	1893	0 38	1942	0 3	1991	0 44
1760	2 29	1845	1 18	1894	0 37	1943	0 4	1992	0 45
1770	2 21	1846	1 17	1895	0 36	1944	0 5	1993	0 46
1780	+ 2 12	1847	+ 1 16	1896	+ 0 35	1945	− 0 6	1994	− 0 47
1790	2 4	1848	1 15	1897	0 34	1946	0 7	1995	0 48
1800	1 56	1849	1 15	1898	0 33	1947	0 8	1996	0 49
1801	1 55	1850	1 14	1899	0 33	1948	0 8	1997	0 49
1802	1 54	1851	1 13	1900	0 32	1949	0 9	1998	0 50
1803	1 53	1852	1 12	1901	0 31	1950	0 10	1999	0 51
1804	1 52	1853	1 11	1902	0 30	1951	0 11	2000	0 52
1805	1 51	1854	1 10	1903	0 29	1952	0 12	2020	1 9
1806	1 51	1855	1 10	1904	0 29	1953	0 13	2040	1 25
1807	1 50	1856	1 9	1905	0 28	1954	0 13	2060	1 42
1808	1 49	1857	1 8	1906	0 27	1955	0 14	2080	1 59
1809	1 48	1858	1 7	1907	0 26	1956	0 15	2100	2 16
1810	1 47	1859	1 6	1908	0 25	1957	0 16	2200	3 40
1811	1 46	1860	1 5	1909	0 24	1958	0 17	2300	5 3
1812	1 46	1861	1 5	1910	0 23	1959	0 18	2400	6 27
1813	1 45	1862	+ 1 4	1911	+ 0 23	1960	− 0 18	2500	− 7 51

N. B. The corrections are for the middle of the year.

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Note :—In the construction of the foregoing table the *ayanamsa* adopted as the basis is as stated below for different years. These are according to the *Citrāpakṣa* and are given for the beginning of the year.

Year	Ayanāṁsa		Year	Ayanāṁśa		Year	Ayanāṁśa		Year	Ayanāṁśa		Year	Ayanāṁśa	
A.D.	°	′	A.D.	°	′	A.D.	°	′	A.D.	°	′	A.D.	°	′
1000	9	55	1560	17	43	1720	19	57	1880	22	11	2040	24	25
1100	11	19	1580	18	0	1740	20	14	1900	22	28	2060	24	42
1200	12	42	1600	18	17	1760	20	31	1920	22	44	2080	24	59
1300	14	6	1620	18	33	1780	20	47	1940	23	1	2100	25	15
1400	15	29	1640	18	50	1800	21	4	1960	23	18	2200	26	39
1500	16	53	1660	19	7	1820	21	21	1980	23	35	2300	28	3
1520	17	10	1680	19	24	1840	21	37	2000	23	52	2400	29	27
1540	17	26	1700	19	40	1860	21	54	2020	24	8	2500	30	51

Directions for using the Tables for Southern Latitudes

Although the Tables of Ascendants as given in this book relate to places in the northern hemisphere only, they may be used also for obtaining the ascendant for places in the southern hemisphere by a special contrivance. The table for a particular degree of northern latitude may be used to find the ascendant for a place having the same degree of southern latitude by the following rule.

Rule :—As usual first find the sidereal time for the given hour of the day. **Add to it ± 12 hours.** Then with this sidereal time find the Ascendant from the table, and as usual apply to it the *Ayanāṁśa* correction. **Now add to it ± 6** signs (i.e. 180 degrees), and the result will be the required ascendant for the given place and time.

The Tenth House may also be obtained by the above rule. Or it may be obtained by using the ordinary sidereal time in the usual way (i.e., without adding ± 12*h* and ± 6 signs) as the results obtained in both the cases are the same as far as the tenth house is concerned.

N.B.—Addition of ±12*h* means that 12*h* may either be added or subtracted as is convenient, the result in both the cases being the same. Similar is the case in the addition of ± 6 *signs* also. It should be borne in mind that both 24*h* and 12 *signs* complete the circle and hence 24*h* and 12 *signs* should be deducted from the corresponding figures whenever they exceed the circle.

Note

The Tables of Ascendants are given only for some particular degrees of latitude. Use the Table which is given for the latitude nearest to that of the given place. When a higher degree of precision is desired, use two tables, one above and the other below the latitude of the place and then ascertain the exact degree of the ascendant by simple interpolation from the result of the two tables.

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Table of the TENTH HOUSE

(For all places on the Earth)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	11 7 0	0 24 28	2 7 0	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32
4	8 5	25 28	7 55	20 32	8 5	25 28	7 55	20 32
8	9 11	26 27	8 50	21 32	9 11	26 27	8 50	21 32
12	10 16	27 27	9 45	22 32	10 16	27 27	9 45	22 32
16	11 22	28 26	10 40	23 33	11 22	28 26	10 40	23 33
20	12 27	0 29 25	11 35	24 33	12 27	6 29 25	11 35	24 33
24	13 32	1 0 23	12 30	25 34	13 32	7 0 23	12 30	25 34
28	14 37	1 22	13 26	26 35	14 37	1 22	13 26	26 35
32	11 15 43	1 2 21	2 14 21	3 27 36	5 15 43	7 2 21	8 14 21	9 27 36
36	16 48	3 19	15 16	28 37	16 48	3 19	15 16	28 37
40	17 53	4 17	16 11	3 29 39	17 53	4 17	16 11	9 29 39
44	18 58	5 15	17 7	4 0 41	18 58	5 15	17 7	10 0 41
48	20 3	6 13	18 2	1 42	20 3	6 13	18 2	1 42
52	21 8	7 11	18 58	2 44	21 8	7 11	18 58	2 44
56	22 12	8 8	19 53	3 47	22 12	8 8	19 53	3 47
	1h	4h	7h	10h	13h	16h	19h	22h
0	11 23 17	1 9 5	2 20 49	4 4 49	5 23 17	7 9 5	8 20 49	10 4 49
4	24 21	10 3	21 44	5 52	24 21	10 3	21 44	5 52
8	25 26	11 0	22 40	6 54	25 26	11 0	22 40	6 54
12	26 30	11 57	23 36	7 57	26 30	11 57	23 36	7 57
16	27 34	12 54	24 32	9 0	27 34	12 54	24 32	9 0
20	28 38	13 50	25 28	10 3	28 38	13 50	25 28	10 3
24	11 29 42	14 47	26 24	11 7	5 29 42	14 47	26 24	11 7
28	0 0 46	15 43	27 20	12 10	6 0 46	15 43	27 20	12 10
32	0 1 50	1 16 40	2 28 17	4 13 14	6 1 50	7 16 40	8 28 17	10 13 14
36	2 53	17 36	2 29 13	14 18	2 53	17 36	8 29 13	14 18
40	3 57	18 32	3 0 10	15 22	3 57	18 32	9 0 10	15 22
44	5 0	19 28	1 6	16 26	5 0	19 28	1 6	16 26
48	6 3	20 24	2 3	17 30	6 3	20 24	2 3	17 30
52	7 6	21 20	3 0	18 34	7 6	21 20	3 0	18 34
56	8 8	22 16	3 57	19 39	8 8	22 16	3 57	19 39
	2h	5h	8h	11h	14h	17h	20h	23h
0	0 9 11	1 23 11	3 4 55	4 20 43	6 9 11	7 23 11	9 4 55	10 20 43
4	10 13	24 7	5 52	21 48	10 13	24 7	5 52	21 48
8	11 16	25 2	6 49	22 52	11 16	25 2	6 49	22 52
12	12 19	25 58	7 47	23 57	12 18	25 58	7 47	23 57
16	13 19	26 53	8 45	25 2	13 19	26 53	8 45	25 2
20	14 21	27 49	9 43	26 7	14 21	27 49	9 43	26 7
24	15 23	28 44	10 41	27 12	15 23	28 44	10 41	27 12
28	16 24	1 29 39	11 39	28 17	16 24	7 29 39	11 39	28 17
32	0 17 25	2 0 34	3 12 38	4 29 23	6 17 25	8 0 34	9 12 38	10 29 23
36	18 26	1 30	13 37	5 0 28	18 26	1 30	13 37	11 0 28
40	19 27	2 25	14 35	1 33	19 27	2 25	14 35	1 33
44	20 27	3 20	15 34	2 38	20 27	3 20	15 34	2 38
48	21 28	4 15	16 33	3 44	21 28	4 15	16 33	3 44
52	22 28	5 10	17 33	4 49	22 28	5 10	17 33	4 49
56	23 28	6 5	18 32	5 55	23 28	6 5	18 32	5 55
60	0 24 28	2 7 0	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32	11 7 0

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–5′	1°–3′	1°–1′	0°–59′	0°–57′	0°–55′
Variation in 3 mins. :	49′	47′	46′	44′	43′	41′
,, ,, 2 mins.	32	31	31	30	29	28
,, ,, 1 min.	16	16	15	15	14	14

Ascendant for Latitude 0° 0′

(For all places on or near the Earth's equator)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 7 0	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32	11 7 0	0 24 28
4	7 55	20 32	8 5	25 28	7 55	20 32	8 5	25 28
8	8 50	21 32	9 11	26 27	8 50	21 32	9 11	26 27
12	9 45	22 32	10 16	27 27	9 45	22 32	10 16	27 27
16	10 40	23 33	11 22	28 26	10 40	23 33	11 22	28 26
20	11 35	24 33	12 27	6 29 25	11 35	24 33	12 27	0 29 25
24	12 30	25 34	13 32	7 0 23	12 30	25 34	13 32	1 0 23
28	13 26	26 35	14 37	1 22	13 26	26 35	14 37	1 22
32	2 14 21	3 27 36	5 15 43	7 2 21	8 14 21	9 27 36	11 15 43	1 2 21
36	15 16	28 37	16 48	3 19	15 16	28 37	16 48	3 19
40	16 11	3 29 39	17 53	4 17	16 11	9 29 39	17 53	4 17
44	17 7	4 0 41	18 58	5 15	17 7	10 0 41	18 58	5 15
48	18 2	1 42	20 3	6 13	18 2	1 42	20 3	6 13
52	18 58	2 44	21 8	7 11	18 58	2 44	21 8	7 11
56	19 53	3 47	22 12	8 8	19 53	3 47	22 12	8 8
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 20 49	4 4 49	5 23 17	7 9 5	8 20 49	10 4 49	11 23 17	1 9 5
4	21 44	5 52	24 21	10 3	21 44	5 52	24 21	10 3
8	22 40	6 54	25 26	11 0	22 40	6 54	25 26	11 0
12	23 36	7 57	26 30	11 57	23 36	7 57	26 30	11 57
16	24 32	9 0	27 34	12 51	24 32	9 0	27 34	12 54
20	25 28	10 3	28 38	13 50	25 28	10 3	28 38	13 50
24	26 24	11 7	5 29 42	14 47	26 24	11 7	11 29 42	14 47
28	27 20	12 10	6 0 46	15 43	27 20	12 10	0 0 46	15 43
32	2 28 17	4 13 14	6 1 50	7 16 40	8 28 17	10 13 14	0 1 50	1 16 40
36	2 29 13	14 18	2 53	17 36	8 29 13	14 18	2 53	17 36
40	3 0 10	15 22	3 57	18 32	9 0 10	15 22	3 57	18 32
44	1 6	16 26	5 0	19 28	1 6	16 26	5 0	19 28
48	2 3	17 30	6 3	20 24	2 3	17 30	6 3	20 24
52	3 0	18 34	7 6	21 20	3 0	18 34	7 6	21 20
56	3 57	19 39	8 8	22 16	3 57	19 39	8 8	22 16
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 4 55	4 20 43	6 9 11	7 23 11	9 4 55	10 20 43	0 9 11	1 23 11
4	5 52	21 48	10 13	24 7	5 52	21 48	10 13	24 7
8	6 49	22 52	11 16	25 2	6 49	22 52	11 16	25 2
12	7 47	23 57	12 18	25 58	7 47	23 57	12 18	25 58
16	8 45	25 2	13 19	26 53	8 45	25 2	13 19	26 53
20	9 43	26 7	14 21	27 49	9 43	26 7	14 21	27 49
24	10 41	27 12	15 23	28 44	10 41	27 12	15 23	28 44
28	11 39	28 17	16 24	7 29 39	11 39	28 17	16 24	1 29 39
32	3 12 38	4 29 23	6 17 25	8 0 34	9 12 38	10 29 23	0 17 25	2 0 34
36	13 37	5 0 28	18 26	1 30	13 37	11 0 28	18 26	1 30
40	14 35	1 33	19 27	2 25	14 35	1 33	19 27	2 25
44	15 34	2 38	20 27	3 20	15 34	2 38	20 27	3 20
48	16 33	3 44	21 28	4 15	16 33	3 44	21 28	4 15
52	17 33	4 49	22 28	5 10	17 33	4 49	22 28	5 10
56	18 32	5 55	23 28	6 5	18 32	5 55	23 28	6 5
60	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32	11 7 0	0 24 28	2 7 0

PROPORTIONAL PARTS

Variation in 4 mins. :	0° - 55′	0° - 57′	0° - 59′	1° - 1′	1° - 3′	1° - 5′
Variation in 3 mins.	41′	43′	44′	46′	47′	49′
„ „ 2 mins.	28	29	30	31	32	33
„ „ 1 min.	14	14	15	15	16	16

Ascendant for Latitude 2° 0′ North

(For Singapore 1° N 21′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 7 48	3 20 8	5 7 0	6 23 52	8 6 12	9 18 55	11 7 0	0 25 5
4	8 43	21 8	8 4	24 51	7 7	19 55	8 6	26 5
8	9 38	22 7	9 9	25 50	8 2	20 56	9 13	27 5
12	10 33	23 7	10 13	26 49	8 57	21 57	10 19	28 5
16	11 28	24 7	11 18	27 47	9 52	22 58	11 26	0 29 5
20	12 23	25 7	12 22	28 46	10 48	23 59	12 32	1 0 4
24	13 18	26 7	13 26	6 29 44	11 43	25 0	13 38	1 3
28	14 13	27 7	14 31	7 0 42	12 38	26 2	14 44	2 3
32	2 15 8	3 28 8	5 15 35	7 1 40	8 13 33	9 27 4	11 15 51	1 3 1
36	16 3	3 29 8	16 39	2 38	14 29	28 6	16 57	4 0
40	16 58	4 0 9	17 43	3 36	15 24	9 29 8	18 3	4 59
44	17 54	1 10	18 47	4 34	16 19	10 0 10	19 9	5 57
48	18 49	2 11	19 51	5 31	17 15	1 13	20 15	6 55
52	19 44	3 13	20 55	6 28	18 10	2 15	21 20	7 53
56	20 40	4 14	21 59	7 26	19 6	3 18	22 26	8 51

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 21 35	4 5 16	5 23 3	7 8 23	8 20 2	10 4 22	11 23 32	1 9 49
4	22 31	6 17	24 6	9 20	20 58	5 25	24 37	10 46
8	23 26	7 20	25 10	10 16	21 54	6 28	25 42	11 44
12	24 20	8 22	26 13	11 13	22 50	7 32	26 48	12 41
16	25 18	9 24	27 16	12 10	23 46	8 36	27 53	13 38
20	26 13	10 26	28 20	13 6	24 42	9 40	11 28 58	14 35
24	27 9	11 29	5 29 23	14 2	25 38	10 44	0 0 2	15 32
28	28 5	12 31	6 0 26	14 58	26 35	11 48	1 7	16 29
32	2 29 1	4 13 34	6 1 29	7 15 55	8 27 31	10 12 53	0 2 12	1 17 25
36	2 29 58	14 37	2 31	16 51	28 28	13 58	3 16	18 22
40	3 0 54	15 40	3 33	17 47	8 29 25	15 2	4 20	19 18
44	1 50	16 44	4 36	18 42	9 0 22	16 7	5 24	20 14
48	2 47	17 47	5 38	19 38	1 19	17 12	6 28	21 10
52	3 44	18 50	6 40	20 34	2 16	18 18	7 32	22 6
56	4 40	19 54	7 42	21 29	3 14	19 23	8 35	23 2

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 5 37	4 20 57	6 8 44	7 22 25	9 4 11	10 20 28	0 9 38	1 23 58
4	6 34	22 1	9 46	23 20	5 9	21 34	10 42	24 54
8	7 32	23 5	10 47	24 16	6 7	22 40	11 45	25 50
12	8 29	24 9	11 49	25 11	7 5	23 45	12 47	26 45
16	9 26	25 13	12 50	26 6	8 3	24 51	13 50	27 41
20	10 24	26 17	13 51	27 2	9 1	25 57	14 52	28 36
24	11 22	27 21	14 52	27 57	10 0	27 4	15 54	1 29 31
28	12 20	28 25	15 52	28 50	10 59	28 9	16 56	2 0 27
32	3 13 18	4 29 29	6 16 53	7 29 47	9 11 57	10 29 16	0 17 58	2 1 22
36	14 16	5 0 34	17 53	8 0 42	12 57	11 0 22	19 0	2 17
40	15 14	1 38	18 53	1 37	13 56	1 28	20 1	3 12
44	16 13	2 42	19 53	2 32	14 55	2 34	21 2	4 7
48	17 11	3 47	20 53	3 27	15 55	3 41	22 3	5 3
52	18 10	4 51	21 53	4 22	16 55	4 47	23 4	5 58
56	19 9	5 56	22 52	5 17	17 55	5 54	24 5	6 53
60	3 20 8	5 7 0	6 23 52	8 6 12	9 18 55	11 7 0	0 25 5	2 7 48

PROPORTIONAL PARTS

Variation in 4 mins.	0°–55′	0°–57′	0°–59′	1°–1′	1°–3′	1°–5′
Variation in 3 mins.	41′	43′	44′	46′	47′	49′
„ „ 2 mins.	28	29	30	31	32	33
„ „ 1 min.	14	14	15	15	16	16

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Ascendant for Latitude 4° 0′ North

(For Kuala Lumpur 3° N 09′ etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 8 36	3 20 44	5 7 0	6 23 16	8 5 24	9 18 17	11 7 0	0 25 43
4	9 31	21 43	8 3	24 14	6 19	19 18	8 7	26 44
8	10 26	22 42	9 7	25 13	7 14	20 19	9 15	27 44
12	11 21	23 41	10 10	26 11	8 9	21 21	10 22	28 44
16	12 16	24 40	11 14	27 10	9 5	22 22	11 30	0 29 45
20	13 11	25 40	12 17	28 8	10 0	23 24	12 37	1 0 44
24	14 5	26 39	13 21	6 29 5	10 55	24 26	13 44	1 44
28	15 0	27 39	14 24	7 0 3	11 50	25 28	14 52	2 44
32	2 15 56	3 28 39	5 15 27	7 1 1	8 12 45	9 26 31	11 15 59	1 3 43
36	16 50	3 29 39	16 31	1 58	13 41	27 33	17 6	4 42
40	17 46	4 0 39	17 34	2 56	14 36	28 36	18 13	5 41
44	18 41	1 39	18 37	3 53	15 32	9 29 39	19 20	6 40
48	19 36	2 40	19 40	4 50	16 27	10 0 42	20 27	7 38
52	20 31	3 40	20 43	5 47	17 23	1 46	21 34	8 37
56	21 26	4 41	21 46	6 44	18 19	2 49	22 40	9 35

	1h	4h	7h	10h	13h	16h	19h	22h
0	2 22 21	4 5 42	5 22 49	7 7 40	8 19 15	10 3 53	11 23 47	1 10 33
4	23 17	6 43	23 51	8 37	20 11	4 57	24 53	11 31
8	24 12	7 44	24 54	9 33	21 7	6 2	26 0	12 28
12	25 7	8 46	25 57	10 30	22 3	7 6	27 6	13 26
16	26 3	9 47	26 59	11 26	22 59	8 11	28 12	14 23
20	26 59	10 49	28 1	12 22	23 55	9 16	11 29 18	15 21
24	27 54	11 50	5 29 4	13 18	24 52	10 21	0 0 23	16 18
28	28 50	12 52	6 0 6	14 14	25 49	11 26	1 29	17 15
32	2 29 46	4 13 54	6 1 8	7 15 10	8 26 45	10 12 31	0 2 34	1 18 11
36	3 0 42	14 56	2 10	16 6	27 42	13 37	3 39	19 8
40	1 38	15 59	3 11	17 1	28 39	14 42	4 44	20 5
44	2 34	17 0	4 13	17 57	8 29 37	15 48	5 49	21 1
48	3 30	18 3	5 14	18 52	9 0 34	16 54	6 54	21 57
52	4 27	19 6	6 16	19 48	1 32	18 0	7 58	22 53
56	5 23	20 9	7 17	20 43	2 29	19 7	9 3	23 49

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 6 20	4 21 11	6 8 18	7 21 39	9 3 27	10 20 13	0 10 7	1 24 45
4	7 16	22 14	9 19	22 34	4 25	21 20	11 11	25 41
8	8 13	23 17	10 20	23 29	5 23	22 26	12 14	26 37
12	9 10	24 20	11 20	24 24	6 22	23 33	13 18	27 33
16	10 7	25 23	12 21	25 19	7 20	24 40	14 21	28 28
20	11 4	26 26	13 21	26 14	8 19	25 47	15 24	1 29 24
24	12 1	27 29	14 21	27 10	9 18	26 54	16 27	2 0 19
28	12 59	28 33	15 21	28 4	10 17	28 1	17 29	1 15
32	3 13 57	4 29 36	6 16 21	7 29 0	9 11 16	10 29 8	0 18 32	2 2 10
36	14 55	5 0 39	17 21	7 29 55	12 16	11 0 16	19 34	3 5
40	15 52	1 43	18 20	8 0 49	13 15	1 23	20 36	4 0
44	16 50	2 46	19 20	1 44	14 15	2 30	21 38	4 55
48	17 49	3 50	20 19	2 39	15 16	3 38	22 39	5 51
52	18 47	4 53	21 18	3 34	16 16	4 45	23 41	6 46
56	19 46	5 57	22 17	4 29	17 16	5 52	24 42	7 41
60	3 20 44	5 7 0	6 23 16	8 5 24	9 18 17	11 7 0	0 25 43	2 8 36

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 55′	0° – 57′	0° – 59′	1° – 1′	1° – 3′	1° – 5′	1° – 7′
Variation in 3 mins.	41′	43′	44′	46′	47′	49′	50′
" " 2 mins.	28	29	30	31	32	33	34
" " 1 min.	14	14	15	15	16	16	17

Ascendant for Latitude 5° 0′ North

(For Penang 5° N 25′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 9 0	3 21 2	5 7 0	6 22 58	8 5 0	9 17 58	11 7 0	0 26 2
4	9 55	22 0	8 3	23 57	5 55	18 59	8 8	27 3
8	10 50	22 59	9 6	24 55	6 50	20 0	9 16	28 4
12	11 44	23 58	10 9	25 53	7 45	21 2	10 24	0 29 4
16	12 39	24 57	11 12	26 51	8 41	22 4	11 32	1 0 5
20	13 34	25 56	12 15	27 49	9 36	23 6	12 40	1 5
24	14 29	26 55	13 18	28 46	10 31	24 8	13 48	2 5
28	15 24	27 54	14 21	6 29 44	11 26	25 11	14 5	3 5
32	2 16 19	3 28 54	5 15 24	7 0 41	8 12 21	9 26 14	11 16 3	1 4 4
36	17 14	3 29 54	16 26	1 38	13 17	27 17	17 11	5 3
40	18 9	4 0 54	17 29	2 36	14 12	28 20	18 18	6 3
44	19 4	1 53	18 32	3 33	15 8	9 29 23	19 26	7 1
48	19 59	2 54	19 34	4 29	16 3	10 0 27	20 33	8 0
52	20 54	3 54	20 37	5 26	16 59	1 31	21 40	8 59
56	21 49	4 54	21 39	6 23	17 55	2 35	22 48	9 57

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 22 44	4 5 55	5 22 42	7 7 19	8 18 51	10 3 39	11 23 55	1 10 55
4	23 40	6 56	23 44	8 16	19 47	4 43	25 2	11 53
8	24 35	7 56	24 46	9 12	20 43	5 48	26 8	12 51
12	25 30	8 57	25 48	10 8	21 39	6 53	27 15	13 49
16	26 26	9 58	26 50	11 4	22 36	7 58	28 21	14 46
20	27 21	11 0	27 52	12 0	23 32	9 3	11 29 28	15 43
24	28 17	12 1	28 54	12 56	24 29	10 9	0 0 34	16 41
28	2 29 12	13 2	5 29 56	13 52	25 25	11 14	1 40	17 38
32	3 0 8	4 14 4	6 0 58	7 14 48	8 26 22	10 12 20	0 2 46	1 18 35
36	1 4	15 6	1 59	15 43	27 19	13 26	3 51	19 31
40	2 0	16 8	3 0	16 39	28 17	14 32	4 57	20 28
44	2 56	17 10	4 2	17 34	8 29 14	15 39	6 2	21 24
48	3 52	18 12	5 3	18 30	9 0 11	16 45	7 7	22 21
52	4 48	19 14	6 4	19 25	1 9	17 52	8 12	23 17
56	5 44	20 16	7 4	20 20	2 7	18 58	9 17	24 13

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 6 41	4 21 18	6 8 5	7 21 16	9 3 5	10 20 5	0 10 21	1 25 9
4	7 37	22 21	9 6	22 11	4 3	21 12	11 25	26 5
8	8 34	23 23	10 6	23 6	5 1	22 20	12 29	27 1
12	9 31	24 26	11 6	24 1	6 0	23 27	13 33	27 57
16	10 27	25 28	12 7	24 56	6 59	24 34	14 37	28 52
20	11 24	26 31	13 6	25 51	7 57	25 42	15 40	1 29 48
24	12 22	27 34	14 6	26 46	8 57	26 49	16 43	2 0 43
28	13 19	28 36	15 6	27 41	9 56	27 57	17 46	1 39
32	3 14 16	4 29 39	6 16 6	7 28 36	9 10 55	10 29 5	0 18 49	2 2 34
36	15 14	5 0 42	17 5	7 29 31	11 55	11 0 12	19 52	3 29
40	16 11	1 45	18 4	8 0 26	12 55	1 20	20 54	4 24
44	17 9	2 48	19 3	1 21	13 55	2 28	21 56	5 19
48	18 7	3 51	20 2	2 16	14 56	3 36	22 58	6 15
52	19 5	4 54	21 1	3 10	15 56	4 44	24 0	7 10
56	20 3	5 57	22 0	4 5	16 57	5 52	25 1	8 5
60	3 21 2	5 7 0	6 22 58	8 5 0	9 17 58	11 7 0	0 26 2	2 9 0

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–55′	0°–57′	0°–59′	1°–1′	1°–3′	1°–5′	1°–7′
Variation in 3 mins.	41′	43′	44′	46′	47′	49′	50′
,, ,, 2 mins.	28	29	30	31	32	33	34
,, ,, 1 min.	14	14	15	15	16	16	17

Ascendant for Latitude 6° 0′ North

(For Galle 6° N 01′; etc.)

Minute	SIDEREAL TIME																							
	0h			3h			6h			9h			12h			15h			18h			21h		
	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
0	2	9	24	3	21	19	5	7	0	6	22	41	8	4	36	9	17	38	11	7	0	0	26	22
4		10	19		22	18		8	3		23	39		5	31		18	40		8	9		27	23
8		11	14		23	16		9	5		24	37		6	26		19	41		9	17		28	24
12		12	8		24	14		10	8		25	35		7	21		20	43		10	26	0	29	25
16		13	3		25	13		11	10		26	32		8	16		21	46		11	34	1	0	25
20		13	58		26	12		12	13		27	30		9	12		22	48		12	42		1	26
24		14	53		27	11		13	15		28	27		10	7		23	51		13	51		2	26
28		15	48		28	10		14	18	6	29	25		11	2		24	53		14	59		3	26
32	2	16	43	3	29	9	5	15	20	7	0	22	8	11	57	9	25	56	11	16	7	1	4	25
36		17	38	4	0	8		16	22		1	19		12	53		27	0		17	16		5	25
40		18	33		1	8		17	24		2	16		13	48		28	3		18	24		6	24
44		19	28		2	8		18	27		3	12		14	44	9	29	7		19	32		7	23
48		20	23		3	7		19	29		4	9		15	39	10	0	11		20	40		8	22
52		21	17		4	7		20	31		5	6		16	35		1	15		21	47		9	21
56		22	12		5	7		21	33		6	2		17	31		2	20		22	55		10	19
	1h			4h			7h			10h			13h			16h			19h			22h		
0	2	23	8	4	6	8	5	22	35	7	6	58	8	18	27	10	3	24	11	24	2	1	11	18
4		24	3		7	8		23	37		7	55		19	23		4	29		25	10		12	16
8		24	58		8	8		24	39		8	51		20	19		5	34		26	17		13	14
12		25	53		9	9		25	40		9	47		21	15		6	40		27	24		14	12
16		26	48		10	10		26	42		10	43		22	12		7	45		28	31		15	9
20		27	44		11	11		27	43		11	38		23	8		8	51	11	29	38		16	7
24		28	39		12	12		28	45		12	34		24	5		9	56	0	0	45		17	4
28	2	29	35		13	13	5	29	46		13	30		25	2		11	3		1	51		18	1
32	3	0	30	4	14	14	6	0	47	7	14	25	8	25	59	10	12	9	0	2	57	1	18	58
36		1	26		15	15		1	48		15	21		26	56		13	15		4	4		19	55
40		2	22		16	17		2	49		16	16		27	53		14	22		5	9		20	52
44		3	17		17	18		3	50		17	12		28	51		15	29		6	15		21	48
48		4	13		18	20		4	51		18	7	8	29	48		16	36		7	20		22	45
52		5	9		19	21		5	52		19	2	9	0	46		17	43		8	26		23	41
56		6	5		20	23		6	52		19	57		1	44		18	50		9	31		24	37
	2h			5h			8h			11h			14h			17h			20h			23h		
0	3	7	2	4	21	25	6	7	52	7	20	53	9	2	42	10	19	58	0	10	36	1	25	33
4		7	58		22	27		8	53		21	48		3	41		21	5		11	40		26	29
8		8	54		23	29		9	53		22	42		4	39		22	13		12	45		27	25
12		9	51		24	31		10	53		23	38		5	38		23	20		13	49		28	21
16		10	48		25	33		11	52		24	32		6	37		24	28		14	53	1	29	16
20		11	44		26	36		12	52		25	27		7	36		25	36		15	57	2	0	12
24		12	41		27	38		13	52		26	22		8	35		26	44		17	0		1	7
28		13	38		28	40		14	51		27	17		9	35		27	53		18	4		2	3
32	3	14	35	4	29	43	6	15	50	7	28	12	9	10	34	10	29	1	0	19	7	2	2	58
36		15	33	5	0	45		16	49	7	29	7		11	34	11	0	9		20	9		3	53
40		16	30		1	47		17	48	8	0	2		12	34		1	18		21	12		4	48
44		17	28		2	50		18	47		0	57		13	35		2	26		22	14		5	44
48		18	25		3	52		19	46		1	52		14	35		3	34		23	17		6	39
52		19	23		4	55		20	44		2	46		15	36		4	43		24	19		7	34
56		20	21		5	57		21	42		3	41		16	37		5	51		25	20		8	29
60	3	21	19	5	7	0	6	22	41	8	4	36	9	17	38	11	7	0	0	26	22	2	9	24

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–55′	0°–57′	0°–59′	1°–1′	1°–3′	1°–5′	1°–6′
Variation in 3 mins.	41′	43′	44′	46′	47′	49′	51′
" " 2 mins.	28	29	30	31	32	33	34
" " 1 min.	14	14	15	15	16	16	17

Ascendant for Latitude 7° 0′ North

(For Colombo 6° N 54′, Kandy 7° N 18′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 9 48	3 21 37	5 7 0	6 22 23	8 4 12	9 17 18	11 7 0	0 26 42
4	10 43	22 35	8 2	23 21	5 7	18 20	8 9	27 43
8	11 38	23 33	9 4	24 19	6 2	19 22	9 18	28 44
12	12 32	24 31	10 6	25 16	6 57	20 24	10 27	0 29 45
16	13 27	25 29	11 8	26 14	7 52	21 27	11 36	1 0 46
20	14 22	26 28	12 10	27 11	8 47	22 29	12 45	1 47
24	15 17	27 26	13 12	28 8	9 43	23 32	13 54	2 47
28	16 12	28 25	14 14	6 29 5	10 38	24 36	15 3	3 47
32	2 17 6	3 29 24	5 15 16	7 0 2	8 11 33	9 25 39	11 16 12	1 4 47
36	18 1	4 0 23	16 18	0 59	12 28	26 43	17 20	5 47
40	18 56	1 22	17 20	1 56	13 24	27 46	18 29	6 46
44	19 51	2 22	18 22	2 52	14 20	28 51	19 38	7 45
48	20 46	3 21	19 24	3 49	15 15	9 29 55	20 46	8 44
52	21 41	4 21	20 25	4 45	16 11	10 0 59	21 54	9 43
56	22 36	5 20	21 27	5 41	17 7	2 4	23 3	10 42

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 23 31	4 6 20	5 22 28	7 6 38	8 18 3	10 3 9	11 24 11	1 11 40
4	24 26	7 20	23 30	7 34	18 59	4 15	25 18	12 39
8	25 21	8 20	24 31	8 30	19 55	5 20	26 26	13 37
12	26 16	9 21	25 32	9 25	20 51	6 26	27 34	14 35
16	27 11	10 21	26 34	10 21	21 48	7 32	28 41	15 32
20	28 6	11 21	27 35	11 17	22 45	8 38	11 29 49	16 30
24	29 1	12 22	28 36	12 12	23 41	9 44	0 0 56	17 27
28	2 29 57	13 23	5 29 37	13 8	24 38	10 51	2 3	18 25
32	3 0 52	4 14 23	6 0 38	7 14 3	8 25 35	10 11 57	0 3 9	1 19 23
36	1 48	15 24	1 38	14 59	26 33	13 4	4 16	20 19
40	2 43	16 25	2 39	15 54	27 30	14 11	5 22	21 15
44	3 39	17 26	3 39	16 49	28 28	15 19	6 28	22 12
48	4 35	18 28	4 39	17 44	8 29 25	16 26	7 34	23 9
52	5 30	19 29	5 40	18 39	9 0 23	17 34	8 40	24 5
56	6 26	20 30	6 40	19 34	1 21	18 42	9 45	25 1

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 7 22	4 21 32	6 7 40	7 20 29	9 2 20	10 19 49	0 10 51	1 25 57
4	8 19	22 34	8 40	21 24	3 18	20 57	11 56	26 53
8	9 15	23 35	9 39	22 19	4 17	22 6	13 1	27 49
12	10 11	24 36	10 39	23 14	5 16	23 14	14 5	28 45
16	11 8	25 38	11 38	24 9	6 15	24 22	15 9	1 29 40
20	12 4	26 40	12 38	25 4	7 14	25 31	16 14	2 0 36
24	13 1	27 42	13 37	25 59	8 13	26 40	17 17	1 32
28	13 58	28 44	14 36	26 54	9 13	27 48	18 21	2 27
32	3 14 55	4 29 46	6 15 35	7 27 48	9 10 13	10 28 57	0 19 24	2 3 22
36	15 52	5 0 48	16 34	28 43	11 13	11 0 6	20 28	4 18
40	16 49	1 50	17 32	7 29 38	12 13	1 15	21 31	5 13
44	17 46	2 52	18 31	8 0 33	13 14	2 24	22 33	6 8
48	18 44	3 54	19 29	1 28	14 15	3 33	23 36	7 3
52	19 41	4 56	20 27	2 22	15 16	4 42	24 38	7 58
56	20 39	5 58	21 25	3 17	16 17	5 51	25 40	8 53
60	3 21 37	5 7 0	6 22 23	8 4 12	9 17 18	11 7 0	0 26 42	2 9 48

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 55′	0° – 57′	0° – 59′	1° – 1′	1° – 3′	1° – 5′	1° – 8′
Variation in 3 mins :	41′	43′	44′	46′	47′	49′	51′
„ „ 2 mins :	28	29	30	31	32	33	34
„ „ 1 min.	14	14	15	15	16	16	17

Ascendant for Latitude 8° 0′ North

(For Cape Comorin 8° N 6′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 10 12	3 21 54	5 7 0	6 22 6	8 3 48	9 16 58	11 7 0	0 27 2
4	11 7	22 52	8 2	23 4	4 43	18 0	8 10	28 3
8	12 2	23 50	9 3	24 1	5 38	19 3	9 19	0 29 5
12	12 57	24 47	10 5	24 58	6 33	20 5	10 29	1 0 6
16	13 51	25 46	11 7	25 55	7 28	21 8	11 38	1 7
20	14 46	26 44	12 8	26 52	8 23	22 11	12 48	2 8
24	15 41	27 42	13 10	27 49	9 18	23 14	13 58	3 8
28	16 35	28 40	14 11	28 46	10 13	24 18	15 7	4 9
32	2 17 30	3 29 39	5 15 13	6 29 43	8 11 9	9 25 21	11 16 16	1 5 9
36	18 26	4 0 38	16 14	7 0 40	12 4	26 25	17 25	6 9
40	19 20	1 37	17 16	1 36	13 0	27 29	18 35	7 8
44	20 15	2 36	18 17	2 32	13 55	28 4	19 44	8 8
48	21 9	3 35	19 18	3 29	14 51	9 29 39	20 53	9 7
52	22 4	4 34	20 19	4 25	15 47	10 0 44	22 2	10 6
56	22 59	5 33	21 21	5 21	16 43	1 49	23 10	11 5

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 23 54	4 6 33	5 22 22	7 6 17	8 17 39	10 2 54	11 24 19	1 12 3
4	24 49	7 32	23 23	7 13	18 35	4 0	25 27	13 2
8	25 44	8 32	24 24	8 8	19 31	5 6	26 36	14 0
12	26 38	9 32	25 25	9 4	20 27	6 12	27 44	14 58
16	27 33	10 32	26 25	10 0	21 24	7 18	11 28 52	15 56
20	28 29	11 32	27 26	10 55	22 21	8 25	0 0 0	16 54
24	2 29 24	12 32	28 27	11 50	23 18	9 32	1 7	17 51
28	3 0 19	13 33	5 29 27	12 46	24 15	10 39	2 14	18 48
32	3 1 14	4 14 33	6 0 27	7 13 41	8 25 12	10 11 46	0 3 21	1 19 45
36	2 10	15 33	1 28	14 36	26 9	12 53	4 28	20 42
40	3 5	16 34	2 28	15 31	27 6	14 0	5 35	21 39
44	4 0	17 35	3 28	16 27	28 4	15 8	6 42	22 36
48	4 56	18 35	4 28	17 22	8 29 2	16 16	7 48	23 33
52	5 52	19 36	5 28	18 16	9 0 0	17 24	8 54	24 29
56	6 47	20 37	6 28	19 11	0 58	18 33	10 0	25 25

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 7 43	4 21 38	6 7 27	7 20 6	9 1 57	10 19 41	0 11 6	1 26 21
4	8 39	22 39	8 27	21 1	2 55	20 50	12 11	27 17
8	9 35	23 41	9 26	21 56	3 54	21 58	13 16	28 13
12	10 31	24 42	10 25	22 51	4 53	23 7	14 21	1 29 9
16	11 28	25 43	11 24	23 46	5 52	24 16	15 26	2 0 5
20	12 24	26 44	12 23	24 40	6 52	25 25	16 31	1 0
24	13 20	27 46	13 22	25 35	7 51	26 34	17 35	1 56
28	14 17	28 47	14 21	26 30	8 51	27 44	18 39	2 51
32	3 15 14	4 29 49	6 15 20	7 27 25	9 9 51	10 28 53	0 19 42	2 3 47
36	16 11	5 0 50	16 18	28 19	10 52	11 0 2	20 46	4 42
40	17 8	1 52	17 16	7 29 14	11 52	1 12	21 49	5 37
44	18 5	2 53	18 14	8 0 9	12 53	2 22	22 52	6 32
48	19 2	3 55	19 13	1 3	13 54	3 31	23 55	7 27
52	19 59	4 57	20 10	1 58	14 55	4 41	24 57	8 22
56	20 56	5 58	21 8	2 53	15 57	5 50	26 0	9 17
60	3 21 54	5 7 0	6 22 6	8 3 48	9 16 58	11 7 0	0 27 2	2 10 12

PROPORTIONAL PARTS

Variation in 4 mins :	0°-55′	0°-57′	1°-0′	1°-2′	1°-5	1°-7	1°-10′
Variation in 3 mins.	41′	43′	45′	47′	49′	50′	53
,, ,, 2 mins.	28	29	30	31	33	34	35
,, ,, 1 min.	14	14	15	15	16	17	17

Ascendant for Latitude 9° 0′ North

(For Tuticorin 8° N 49′, etc.)

Minute	SIDEREAL TIME							
	0h	**3h**	**6h**	**9h**	**12h**	**15h**	**18h**	**21h**
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 10 36	3 22 11	5 7 0	6 21 49	8 3 24	9 16 38	11 7 0	0 27 22
4	11 31	23 9	8 1	22 46	4 18	17 40	8 10	28 24
8	12 26	24 6	9 2	23 43	5 13	18 43	9 20	0 29 26
12	13 21	25 4	10 4	24 40	6 8	19 46	10 31	1 0 27
16	14 15	26 2	11 5	25 37	7 3	20 49	11 41	1 28
20	15 10	26 59	12 6	26 34	7 58	21 52	12 51	2 29
24	16 5	27 58	13 7	27 31	8 54	22 55	14 1	3 30
28	16 59	28 56	14 8	28 27	9 49	23 59	15 11	4 31
32	2 17 54	3 29 54	5 15 9	6 29 24	8 10 44	9 25 3	11 16 21	1 5 31
36	18 49	4 0 52	16 10	7 0 20	11 40	26 8	17 31	6 31
40	19 43	1 51	17 11	1 16	12 35	27 12	18 40	7 31
44	20 38	2 50	18 12	2 12	13 31	28 17	19 50	8 30
48	21 33	3 45	19 13	3 8	14 26	9 29 22	21 0	9 30
52	22 27	4 47	20 14	4 4	15 22	10 0 27	22 9	10 29
56	23 22	5 46	21 14	5 0	16 18	1 33	23 18	11 28
	1h	**4h**	**7h**	**10h**	**13h**	**16h**	**19h**	**22h**
0	2 24 17	4 6 45	5 22 15	7 5 56	8 17 14	10 2 39	11 24 27	1 12 27
4	25 12	7 45	23 16	6 52	18 10	3 45	25 36	13 25
8	26 6	8 44	24 16	7 47	19 7	4 51	26 45	14 24
12	27 1	9 43	25 17	8 43	20 3	5 58	27 54	15 22
16	27 56	10 43	26 17	9 38	21 0	7 4	11 29 2	16 20
20	28 51	11 43	27 17	10 33	21 56	8 11	0 0 10	17 17
24	2 29 46	12 42	28 18	11 29	22 53	9 19	1 18	18 15
28	3 0 41	13 42	5 29 18	12 24	23 50	10 26	2 26	19 12
32	3 1 36	4 14 42	6 0 18	7 13 19	8 24 48	10 11 34	0 3 34	1 20 10
36	2 31	15 42	1 18	14 14	25 45	12 42	4 41	21 7
40	3 27	16 43	2 17	15 9	26 43	13 50	5 49	22 4
44	4 22	17 43	3 17	16 4	27 40	14 58	6 56	23 0
48	5 17	18 43	4 17	16 59	28 38	16 6	8 2	23 57
52	6 13	19 44	5 16	17 54	8 29 36	17 15	9 9	24 53
56	7 8	20 44	6 15	18 48	9 0 35	18 24	10 15	25 50
	2h	**5h**	**8h**	**11h**	**14h**	**17h**	**20h**	**23h**
0	3 8 4	4 21 45	6 7 15	7 19 43	9 1 33	10 19 33	0 11 21	1 26 46
4	9 0	22 46	8 14	20 38	2 32	20 42	12 27	27 42
8	9 56	23 46	9 13	21 33	3 31	21 51	13 33	28 38
12	10 52	24 47	10 12	22 27	4 30	23 0	14 38	1 29 34
16	11 48	25 48	11 10	23 22	5 30	24 10	15 43	2 0 29
20	12 44	26 49	12 9	24 17	6 29	25 20	16 48	1 25
24	13 40	27 50	13 8	25 11	7 29	26 29	17 52	2 20
28	14 36	28 51	14 6	26 6	8 29	27 39	18 57	3 16
32	3 15 33	4 29 52	6 15 4	7 27 1	2 9 29	10 28 49	0 20 1	2 4 11
36	16 29	5 0 53	16 2	27 55	10 30	10 29 59	21 5	5 6
40	17 26	1 54	17 1	28 50	11 31	11 1 9	22 8	6 2
44	18 23	2 55	17 58	7 29 45	12 32	2 19	23 11	6 57
48	19 20	3 56	18 56	8 0 39	13 33	3 29	24 14	7 52
52	20 17	4 58	19 54	1 34	14 34	4 40	25 17	8 47
56	21 14	5 59	20 51	2 29	15 36	5 50	26 20	9 42
60	3 22 11	5 7 0	6 21 49	8 3 24	9 16 38	11 7 0	0 27 22	2 10 36

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–55′	0°–57′	1°–0′	1°–2′	1°–5′	1°–7′	1°–10′
Variation in 3 mins.	41′	43′	45′	47′	49′	50′	53′
" " 2 mins.	28	29	30	31	33	34	35
" " 1 min.	14	14	15	15	16	17	17

Ascendant for Latitude 10° 0′ North

(For Madurai, Cochin, Ernakulam etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 11 1	3 22 28	5 7 0	6 21 32	8 2 59	9 16 17	11 7 0	0 27 43
4	11 56	23 25	8 1	22 29	3 54	17 20	8 11	28 45
8	12 50	24 23	9 2	23 26	4 49	18 2	9 22	0 29 47
12	13 45	25 20	10 2	24 22	5 44	19 26	10 32	1 0 49
16	14 40	26 18	11 3	25 19	6 39	20 29	11 43	1 50
20	15 34	27 15	12 4	26 15	7 34	21 33	12 54	2 51
24	16 29	28 13	13 4	27 12	8 29	22 36	14 4	3 52
28	17 23	3 29 11	14 5	28 8	9 24	23 41	15 15	4 53
32	2 18 18	4 0 9	5 15 6	6 29 4	8 10 19	9 24 45	11 16 26	1 5 53
36	19 13	1 7	16 6	7 0 1	11 15	25 50	17 6	6 54
40	20 7	2 5	17 7	0 57	12 10	26 54	18 46	7 54
44	21 2	3 3	18 7	1 53	13 6	28 0	19 56	8 53
48	21 56	4 2	19 8	2 48	14 2	9 29 5	21 7	9 53
52	22 51	5 0	20 8	3 44	14 57	10 0 11	22 17	10 52
56	23 45	5 59	21 8	4 40	15 54	1 17	23 26	11 51
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 24 40	4 6 58	5 22 9	7 5 35	8 16 49	10 2 23	11 24 36	1 12 50
4	25 34	7 57	23 9	6 31	17 46	3 29	25 45	13 49
8	26 29	8 56	24 9	7 26	18 42	4 36	26 55	14 47
12	27 24	9 55	25 9	8 21	19 39	5 43	28 4	15 46
16	28 19	10 54	26 9	9 17	20 35	6 50	11 29 13	16 44
20	2 29 13	11 53	27 9	10 12	21 32	7 58	0 0 22	17 41
24	3 0 8	12 53	28 9	11 7	22 29	9 6	1 30	18 39
28	1 3	13 52	5 29 8	12 2	23 26	10 13	2 38	19 37
32	3 1 58	4 14 52	6 0 8	7 12 57	8 24 23	10 11 22	0 3 46	1 20 34
36	2 53	15 51	1 7	13 52	25 21	12 30	4 54	21 31
40	3 48	16 51	2 7	14 47	26 19	13 38	6 2	22 28
44	4 43	17 51	3 6	15 41	27 16	14 47	7 10	23 25
48	5 39	18 51	4 5	16 36	28 14	15 56	8 17	24 21
52	6 34	19 51	5 4	17 31	8 29 13	17 5	9 24	25 18
56	7 29	20 51	6 3	18 26	9 0 11	18 15	10 31	26 14
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 8 25	4 21 51	6 7 2	7 19 20	9 1 10	10 19 24	0 11 37	1 27 11
4	9 20	22 52	8 1	20 15	2 9	20 34	12 43	28 7
8	10 16	23 52	9 0	21 9	3 8	21 44	13 49	29 3
12	11 12	24 52	9 58	22 4	4 7	22 54	14 55	1 29 58
16	12 7	25 53	10 57	22 58	5 7	24 4	16 0	2 0 54
20	13 3	26 53	11 55	23 53	6 6	25 14	17 5	1 50
24	13 58	27 54	12 53	24 48	7 6	26 21	18 10	2 45
28	14 56	28 54	13 51	7 25 42	8 7	27 34	19 15	3 41
32	3 15 52	4 29 55	6 14 44	7 26 37	9 9 8	10 28 45	0 20 20	2 4 36
36	16 48	5 0 56	15 47	27 31	10 8	10 29 56	21 24	5 31
40	17 45	1 57	16 45	28 26	11 9	11 1 6	22 27	6 26
44	18 41	2 57	17 42	7 29 20	12 10	2 17	23 31	7 21
48	19 38	3 58	18 40	8 0 15	13 11	3 28	24 34	8 16
52	20 34	4 58	19 37	1 10	14 13	4 38	25 37	9 11
56	21 31	5 59	20 35	2 5	15 15	5 49	26 41	10 6
60	3 22 28	5 7 0	6 21 32	8 2 59	9 16 17	11 7 0	0 27 43	2 11 1

Proportional Parts

Variation in 4 mins. :	0°–54′	0°–57′	1°–0′	1°–3′	1°–6′	1°–9′	1°–11′
Variation in 3 mins.	40′	43′	45′	47′	49′	52′	53′
„ „ 2 mins.	27	29	30	32	33	35	36
„ „ 1 min.	14	14	15	16	17	17	18

T.A.—3

Ascendant for Latitude 11° 0′ North

(For Coimbatore 11° N 0′, Tiruchirapalli 10° N 50′, Thanjavur 10° N 47′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 11 25	3 22 45	5 7 0	6 21 15	8 2 35	9 15 56	11 7 0	0 28 4
4	12 20	23 42	8 0	22 11	3 29	16 59	8 11	0 29 6
8	13 15	24 39	9 1	23 8	4 24	18 2	9 23	1 0 8
12	14 9	25 36	10 1	24 4	5 19	19 5	10 34	1 10
16	15 4	26 33	11 1	25 1	6 14	20 9	11 45	2 12
20	15 58	27 31	12 2	25 57	7 9	21 13	12 57	3 14
24	16 53	28 28	13 2	26 53	8 4	22 17	14 8	4 15
28	17 47	3 29 26	14 2	27 49	8 59	23 21	15 19	5 16
32	2 18 42	4 0 23	5 15 2	6 28 45	8 9 55	9 24 26	11 16 30	1 6 16
36	19 36	1 21	16 2	6 29 41	10 50	25 31	17 41	7 17
40	20 31	2 19	17 2	7 0 37	11 45	26 37	18 52	8 17
44	21 25	3 17	18 2	1 33	12 41	27 42	20 3	9 17
48	22 20	4 15	19 2	2 28	13 37	28 48	21 14	10 16
52	23 14	5 13	20 2	3 24	14 33	9 29 54	22 24	11 16
56	24 9	6 12	21 2	4 19	15 29	10 1 0	23 34	12 15

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 25 3	4 7 10	5 22 2	7 5 15	8 16 25	10 2 7	11 24 45	1 13 14
4	25 58	8 8	23 2	6 10	17 21	3 14	25 55	14 13
8	26 52	9 7	24 2	7 5	18 17	4 21	27 5	15 11
12	27 47	10 6	25 1	8 0	19 14	5 28	28 14	16 10
16	28 41	11 5	26 1	8 55	20 10	6 36	11 29 24	17 8
20	2 29 36	12 4	27 0	9 50	21 7	7 44	0 0 33	18 6
24	3 0 31	13 3	28 0	10 45	22 4	8 52	1 42	19 4
28	1 25	14 2	29 0	11 40	23 2	10 0	2 51	20 1
32	3 2 20	4 15 1	5 29 59	7 12 35	8 23 59	10 11 9	0 4 0	1 20 58
36	3 15	16 0	6 0 57	13 29	24 56	12 18	5 8	21 56
40	4 10	17 0	1 56	14 24	25 54	13 27	6 16	22 53
44	5 5	17 59	2 55	15 19	26 52	14 36	7 24	23 50
48	6 0	18 59	3 54	16 13	27 50	15 46	8 32	24 46
52	6 55	19 58	4 53	17 8	28 49	16 55	9 39	25 43
56	7 50	20 58	5 52	18 2	8 29 47	18 5	10 46	26 39

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 8 45	4 21 58	6 6 50	7 18 57	9 0 46	10 19 15	0 11 53	1 27 35
4	9 41	22 58	7 48	19 51	1 45	20 26	13 0	28 31
8	10 36	23 58	8 47	20 46	2 44	21 36	14 6	1 29 27
12	11 32	24 58	9 45	21 40	3 44	22 46	15 12	2 0 23
16	12 27	25 58	10 43	22 35	4 43	23 57	16 18	1 19
20	13 23	26 58	11 41	23 29	5 43	25 8	17 23	2 15
24	14 19	27 58	12 39	24 24	6 43	26 19	18 29	3 10
28	15 15	28 58	13 37	25 18	7 44	27 30	19 34	4 5
32	3 16 11	4 29 58	6 14 34	7 26 13	9 8 44	10 28 41	0 20 39	2 5 1
36	17 7	5 0 58	15 32	27 7	9 45	10 29 52	21 43	5 56
40	18 3	1 58	16 29	28 2	10 47	11 1 3	22 47	6 51
44	18 59	2 59	17 27	28 56	11 48	2 15	23 51	7 46
48	19 56	3 59	18 24	7 29 51	12 50	3 26	24 55	8 41
52	20 52	4 59	19 21	8 0 45	13 52	4 37	25 58	9 36
56	21 49	6 0	20 18	1 40	14 54	5 49	27 1	10 31
60	3 22 45	5 7 0	6 21 15	8 2 35	9 15 56	11 7 0	0 28 4	2 11 25

PROPORTIONAL PARTS

Variation in 4 mins. :	0°-54′	0°-57′	1°-0′	1°-3′	1°-6′	1°-9′	1°-11′
Variation in 3 mins.	40′	43′	45′	47′	49′	52′	53′
,, ,, 2 mins.	27	29	30	32	33	35	36
,, ,, 1 min.	14	14	15	16	17	17	18

Ascendant for Latitude 12° 0′ North

(For Pondicherry 11° N 56′, Mysore 12° N 18′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 11 50	3 23 2	5 7 0	6 20 58	8 2 10	9 15 35	11 7 0	0 28 25
4	12 45	23 59	8 0	21 54	3 5	16 38	8 12	0 29 28
8	13 39	24 56	9 0	22 50	3 59	17 41	9 24	1 0 30
12	14 34	25 52	10 0	23 46	4 54	18 45	10 36	1 32
16	15 28	26 49	10 59	24 43	5 49	19 49	11 48	2 34
20	16 23	27 46	11 59	25 39	6 44	20 53	13 0	3 36
24	17 17	28 43	12 9	26 35	7 39	21 57	14 12	4 37
28	18 12	3 29 41	13 59	27 31	8 34	23 2	15 24	5 38
32	2 19 6	4 0 38	5 14 59	6 28 26	8 9 29	9 24 7	11 16 35	1 6 39
36	20 0	1 35	15 58	6 29 22	10 25	25 13	17 47	7 40
40	20 55	2 33	16 58	7 0 17	11 20	26 18	18 58	8 40
44	21 49	3 31	17 58	1 13	12 16	27 24	20 10	9 40
48	22 43	4 28	18 57	2 8	13 12	28 30	21 21	10 40
52	23 38	5 25	19 57	3 4	14 8	9 29 37	22 32	11 40
56	24 32	6 24	20 56	3 59	15 4	10 0 44	23 43	12 39

	1h	4h	7h	10h	13h	16h	19h	22h
0	2 25 26	4 7 22	5 21 56	7 4 54	8 16 0	10 1 51	11 24 54	1 13 38
4	26 21	8 20	22 55	5 49	16 56	2 58	26 4	14 37
8	27 15	9 19	23 55	6 44	17 52	4 5	27 15	15 36
12	28 9	10 17	24 54	7 39	18 49	5 13	28 25	16 34
16	29 4	11 15	25 53	8 34	19 45	6 21	11 29 35	17 32
20	2 29 58	12 14	26 52	9 28	20 42	7 30	0 0 45	18 30
24	3 0 53	13 13	27 51	10 23	21 39	8 38	1 54	19 28
28	1 47	14 11	28 50	11 18	22 37	9 47	3 4	20 26
32	3 2 42	4 15 10	5 29 49	7 12 13	8 23 34	10 10 56	0 4 13	1 21 23
36	3 37	16 9	6 0 47	13 7	24 32	12 6	5 22	22 21
40	4 32	17 8	1 46	14 2	25 30	13 15	6 30	23 18
44	5 26	18 7	2 45	14 56	26 28	14 25	7 39	24 15
48	6 21	19 6	3 43	15 51	27 26	15 35	8 47	25 11
53	7 16	20 6	4 41	16 45	28 24	16 45	9 55	26 8
56	8 11	21 5	5 40	17 39	8 29 23	17 56	11 2	27 4

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 9 6	4 22 4	6 6 38	7 18 34	9 0 22	10 19 6	0 12 9	1 28 0
4	10 1	23 4	7 36	19 28	1 21	20 17	13 16	28 56
8	10 56	24 3	8 34	20 22	2 20	21 28	14 23	1 29 52
12	11 52	25 3	9 32	21 17	3 20	22 39	15 30	2 0 48
16	12 47	26 2	10 29	22 11	4 20	23 50	16 36	1 44
20	13 43	27 2	11 27	23 5	5 20	25 2	17 42	2 40
24	14 38	28 2	12 25	24 0	6 20	26 13	18 47	3 35
28	15 34	4 29 1	13 22	24 54	7 21	27 25	19 53	4 31
32	3 16 30	5 0 1	6 14 19	7 25 49	9 8 22	10 28 36	0 20 58	2 5 26
36	17 26	1 1	15 17	26 43	9 23	10 29 48	22 3	6 21
40	18 22	2 1	16 14	27 37	10 24	11 1 0	23 7	7 16
44	19 18	3 1	17 11	28 32	11 26	2 12	24 11	8 11
48	20 14	4 0	18 8	7 29 26	12 28	3 24	25 15	9 6
52	21 10	5 0	19 4	8 0 21	13 30	4 36	26 19	10 1
56	22 6	6 0	20 1	1 15	14 32	5 48	27 22	10 56
60	3 23 2	5 7 0	6 20 58	8 2 10	9 15 35	11 7 0	0 28 25	2 11 51

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–54′	0°–57′	1°–0′	1°–3′	1°–6′	1°–9′	1°–12′
Variation in 3 mins.	40′	43′	45′	47′	49′	52′	54′
" " 2 mins.	27	29	30	32	33	35	36
" " 1 min.	14	14	15	16	17	17	18

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Ascendant for Latitude 13° 0′ North

(For Bangalore 12° N 58′, Vellore 12° N 55′, Mangalore 12° N 52′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 12 15	3 23 19	5 7 0	6 20 41	8 1 45	9 15 13	11 7 0	0 28 47
4	13 9	24 16	8 0	21 37	2 40	16 16	8 13	0 29 50
8	14 4	25 12	8 59	22 33	3 34	17 20	9 25	1 0 53
12	14 58	26 9	9 58	23 29	4 29	18 24	10 38	1 55
16	15 53	27 5	10 58	24 25	5 24	19 28	11 51	2 57
20	16 47	28 2	11 57	25 20	6 19	20 33	13 3	3 59
24	17 42	28 59	12 57	26 16	7 14	21 37	14 16	5 1
28	18 36	3 29 56	13 56	27 12	8 9	22 42	15 28	6 2
32	2 19 30	4 0 53	5 14 55	6 28 7	9 4	9 23 48	11 16 40	1 7 3
36	20 24	1 50	15 55	29 2	10 0	24 54	17 52	8 4
40	21 19	2 47	16 54	6 29 58	10 55	26 0	19 4	9 4
44	22 13	3 44	17 53	7 0 53	11 51	27 6	20 16	10 4
48	23 7	4 41	18 52	1 48	12 46	28 12	21 28	11 4
52	24 1	5 39	19 51	2 43	13 42	9 29 19	22 40	12 4
56	24 55	6 37	20 50	3 38	14 38	10 0 26	23 52	13 3

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 25 50	4 7 34	5 2 49	7 4 33	8 15 34	10 1 34	11 25 3	1 14 3
4	26 44	8 32	22 48	5 28	16 31	2 42	26 14	15 2
8	27 38	9 30	23 47	6 23	17 27	3 50	27 25	16 0
12	28 32	10 28	24 46	7 18	18 24	4 28	28 36	16 59
16	2 29 27	11 26	25 45	8 12	19 20	6 6	11 29 46	17 57
20	3 0 21	12 24	26 43	9 7	20 17	7 15	0 0 57	18 55
24	1 15	13 23	27 42	10 1	21 14	8 24	2 7	19 53
28	2 10	14 21	28 41	10 56	22 12	9 34	3 17	20 51
32	3 4	4 15 19	5 29 39	7 11 50	8 23 9	10 10 43	0 4 26	1 21 48
36	3 59	16 18	6 0 37	12 45	24 7	11 53	5 36	22 46
40	4 53	17 17	1 36	13 39	25 5	13 3	6 45	23 43
44	5 48	18 15	2 34	14 33	26 3	14 14	7 54	24 40
48	6 42	19 14	3 32	15 28	27 1	15 24	9 2	25 38
52	7 37	20 13	4 30	16 22	28 0	16 35	10 10	26 33
56	8 32	21 12	5 28	17 16	28 58	17 46	11 18	27 29

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 9 27	4 22 11	6 6 26	7 18 10	8 29 57	10 18 57	0 12 26	1 28 26
4	10 22	23 10	7 23	19 5	9 0 57	20 8	13 34	1 29 22
8	11 17	24 9	8 21	19 59	1 56	21 20	14 41	2 0 18
12	12 12	25 8	9 19	20 53	2 56	22 32	15 48	1 14
16	13 7	26 7	10 16	21 47	3 56	23 44	16 54	2 9
20	14 2	27 6	11 13	22 41	4 56	24 56	18 0	3 5
24	14 58	28 5	12 10	23 36	5 56	26 8	19 6	4 0
28	15 53	4 29 5	13 7	24 30	6 57	27 20	20 12	4 56
32	3 16 48	5 0 4	6 14 4	7 25 24	9 7 58	10 28 32	0 21 18	2 5 51
36	17 44	1 3	15 1	26 18	8 59	10 29 44	22 23	6 46
40	18 40	2 3	15 58	27 13	10 1	11 0 57	23 27	7 41
44	19 35	3 2	16 55	28 7	11 3	2 9	24 32	8 36
48	20 31	4 2	17 51	29 2	12 5	3 22	25 36	9 3
52	21 27	5 1	18 48	7 29 56	13 7	4 35	26 40	10 26
56	22 23	6 0	19 44	8 0 51	14 10	5 47	27 44	11 2
60	3 23 19	5 7 0	6 20 41	8 1 45	9 15 13	11 7 0	0 28 47	2 12 15

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–54′	0°–57′	1°–0′	1°-3′	1°-6′	1°–9′	1°–12′
Variation in 3 mins :	40′	43′	45′	47′	49′	52′	54′
,, ,, 2 mins :	27	29	30	32	33	35	36
,, ,, 1 min.	14	14	15	16	17	17	18

Ascendant for MADRAS Latitude 13° 4′ North

(Also for other places in or near 13° N 04′ latitude)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 12 17	3 23 20	5 7 0	6 20 40	8 1 43	9 15 11	11 7 0	0 28 49
4	13 11	24 17	8 0	21 36	2 38	16 14	8 13	0 29 52
8	14 6	25 13	8 59	22 32	3 32	17 18	9 25	1 0 55
12	15 0	26 10	9 58	23 28	4 27	18 22	10 38	1 57
16	15 55	27 6	10 58	24 23	5 22	19 26	11 51	2 59
20	16 49	28 3	11 57	25 19	6 17	20 31	13 3	4 1
24	17 44	23 0	12 57	26 14	7 12	21 35	14 16	5 3
28	18 38	3 29 57	13 56	27 10	8 7	22 40	15 28	6 4
32	2 19 32	4 0 54	5 14 55	6 28 5	8 9 2	9 23 46	11 16 40	1 7 5
36	20 26	1 51	15 55	29 0	9 58	24 52	17 52	8 6
40	21 21	2 48	16 54	6 29 56	10 53	25 58	19 5	9 6
44	22 15	3 45	17 53	7 0 51	11 49	27 4	20 17	10 6
48	23 9	4 42	18 52	1 46	12 44	28 11	21 29	11 6
52	24 3	5 40	19 51	2 41	13 40	9 29 18	22 41	12 6
56	24 57	6 38	20 50	3 36	14 36	10 0 25	23 53	13 5
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 25 52	4 7 35	5 21 49	7 4 31	8 15 32	10 1 33	11 25 4	1 14 5
4	26 46	8 33	22 48	5 26	16 29	2 41	26 15	15 4
8	27 40	9 31	23 46	6 21	17 25	3 49	27 26	16 2
12	28 34	10 29	24 45	7 16	18 22	4 57	28 37	17 1
16	2 29 29	11 27	25 44	8 10	19 18	6 5	11 29 47	17 59
20	3 0 23	12 25	26 42	9 5	20 15	7 14	0 0 58	18 57
24	1 17	13 24	27 41	9 59	21 12	8 23	2 8	19 55
28	2 12	14 22	28 40	10 54	22 10	9 33	3 18	20 53
32	3 3 6	4 15 20	5 29 38	7 11 48	8 23 7	10 10 42	0 4 27	1 21 50
36	4 1	16 19	6 0 36	12 43	24 5	11 52	5 37	22 48
40	4 55	17 18	1 35	13 37	25 3	13 2	6 46	23 45
44	5 50	18 16	2 33	14 31	26 1	14 13	7 55	24 42
48	6 44	19 15	3 31	15 26	26 59	15 23	9 3	25 38
52	7 39	20 14	4 29	16 20	27 58	16 34	10 11	26 35
56	8 34	21 12	5 27	17 14	28 56	17 45	11 19	27 31
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 9 29	4 22 11	6 6 25	7 18 8	8 29 55	10 18 56	0 12 27	1 28 28
4	10 24	23 10	7 22	19 3	9 0 55	20 7	13 35	1 29 24
8	11 19	24 9	8 20	19 57	1 54	21 19	14 42	2 0 20
12	12 14	25 8	9 18	20 51	2 54	22 31	15 49	1 16
16	13 9	26 7	10 15	21 45	3 54	23 43	16 56	2 11
20	14 4	27 6	11 12	22 39	4 54	24 55	18 2	3 7
24	15 0	28 5	12 9	23 34	5 54	26 8	19 8	4 2
28	15 55	4 29 5	13 6	24 28	6 55	27 20	20 14	4 58
32	3 16 50	5 0 4	6 14 3	7 25 22	9 7 56	10 28 32	0 21 20	2 5 53
36	17 46	1 3	15 0	26 16	8 57	10 29 44	22 25	6 48
40	18 41	2 3	15 57	27 11	9 59	11 0 57	23 29	7 43
44	19 37	3 2	16 54	28 5	11 1	2 9	24 34	8 38
48	20 32	4 2	17 50	29 0	12 3	3 22	25 38	9 33
52	21 28	5 1	18 47	7 29 54	13 5	4 35	26 42	10 28
56	22 24	6 0	19 43	8 0 49	14 8	5 47	27 46	11 22
60	3 23 20	5 7 0	6 20 40	8 1 43	9 15 11	11 7 0	0 28 49	2 12 17

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 54′	0° - 57′	1° – 0′	1° – 3′	1° - 6′	1° - 9′	1° – 12′
Variation in 3 mins.	40′	43′	45′	47′	49′	52′	54′
" " 2 mins.	27	29	30	32	33	35	36
" " 1 min.	14	14	15	16	17	17	18

Ascendant for Latitude 14° 0′ North

(For Shimoga 13° N 56′, Gudur 14° N 09′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 12 40	3 23 36	5 7 0	6 20 24	8 1 20	9 14 51	11 7 0	0 29 9
4	13 34	24 32	7 59	21 19	2 15	15 55	8 13	1 0 12
8	14 29	25 29	8 58	22 15	3 9	16 9	9 27	1 15
12	15 23	26 25	9 57	23 11	4 4	18 3	10 40	2 18
16	16 18	27 21	10 56	24 6	4 59	19 7	11 53	3 20
20	17 12	28 17	11 55	25 2	5 54	20 12	13 6	4 22
24	18 6	3 29 14	12 54	25 57	6 49	21 17	14 19	5 24
28	19 0	4 0 10	13 53	26 53	7 44	22 22	15 32	6 25
32	2 19 54	4 1 7	5 14 52	6 27 48	8 8 39	9 23 28	11 16 45	1 7 26
36	20 48	2 4	15 51	28 43	9 34	24 34	17 58	8 27
40	21 43	3 1	16 50	6 29 38	10 29	25 40	19 11	9 28
44	22 37	3 58	17 49	7 0 33	11 25	26 47	20 24	10 29
48	23 31	4 55	18 47	1 28	12 21	27 54	21 36	11 29
52	24 25	5 2	19 46	2 23	13 17	9 29 1	22 48	12 28
56	25 19	6 49	20 45	3 18	14 13	10 0 9	24 0	13 28

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 26 13	4 7 47	5 21 43	7 4 13	8 15 9	10 1 17	11 25 12	1 14 27
4	27 7	8 44	22 42	5 7	16 5	2 25	26 24	15 26
8	28 1	9 41	23 40	6 2	17 1	3 33	27 36	16 25
12	28 55	10 39	24 38	6 56	17 58	4 42	28 47	17 24
16	2 29 49	11 37	25 37	7 51	18 55	5 51	11 29 58	18 22
20	3 0 43	12 35	26 35	8 45	19 52	7 0	0 1 9	19 21
24	1 38	13 33	27 33	9 39	20 49	8 10	2 20	20 19
28	2 32	14 31	28 31	10 34	21 46	9 2	3 30	21 16
32	3 3 26	4 15 29	5 29 29	7 11 28	8 22 44	10 10 30	0 4 40	1 22 14
36	4 21	16 27	6 0 27	12 22	23 41	11 40	5 5	23 11
40	5 15	17 25	1 25	13 16	24 39	12 51	7 0	24 8
44	6 9	18 23	2 23	14 11	25 38	14 2	8 9	25 5
48	7 4	19 22	3 21	15 5	26 36	15 13	9 18	26 2
52	7 58	20 20	4 19	15 59	27 35	16 24	10 27	26 59
56	8 53	21 18	5 16	16 53	28 34	17 36	11 35	27 55

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 9 47	4 22 17	6 6 13	7 17 47	8 29 33	10 18 48	0 12 43	1 28 51
4	10 42	23 15	7 11	18 41	9 0 32	20 0	13 51	1 29 47
8	11 37	24 14	8 8	19 35	1 31	21 12	14 59	2 0 43
12	12 32	25 13	9 5	20 29	2 31	22 24	16 6	1 39
16	13 27	26 12	10 2	21 23	3 31	23 36	17 13	2 35
20	14 22	27 10	10 59	22 17	4 32	24 49	18 20	3 31
24	15 17	28 9	11 56	23 12	5 33	26 2	19 26	4 26
28	16 12	4 29 8	12 53	24 6	6 34	27 15	20 32	5 21
32	3 17 7	5 0 7	6 13 50	7 25 0	9 7 35	10 28 28	0 21 38	2 6 16
36	18 3	1 6	14 46	25 54	8 36	10 29 41	22 43	7 11
40	18 58	2 5	15 43	26 48	9 38	11 0 54	23 48	8 6
44	19 51	3 4	16 39	27 42	10 40	2 7	24 53	9 1
48	20 49	4 3	17 35	28 37	11 42	3 20	25 57	9 56
52	21 45	5 2	18 31	7 29 31	12 45	4 33	27 1	10 51
56	22 41	6 1	19 28	8 0 26	13 48	5 47	28 5	11 45
60	3 23 36	5 7 0	6 20 24	8 1 20	9 14 51	11 7 0	0 29 9	2 12 40

PROPORTIONAL PARTS

Variation in 4 mins.:	0°–54′	0°–57′	1°-0′	1°–3′	1°–6′	1°–9′	1°–13′
Variation in 3 mins.	40	43′	45′	47′	49′	52′	55′
„ „ 2 mins.	27	29	30	32	33	35	37
„ „ 1 min.	14	14	15	16	17	17	18

Ascendant for Latitude 15° 0′ North

(For Bellary 15° N 09′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 13 5	3 23 53	5 7 0	6 20 7	8 0 55	9 14 28	11 7 0	0 29 32
4	14 0	24 49	7 59	21 2	1 49	15 32	8 14	1 0 35
8	14 54	25 45	8 58	21 58	2 44	16 36	9 28	1 38
12	15 48	26 41	9 56	22 53	3 38	17 41	10 42	2 41
16	16 42	27 37	10 54	23 49	4 33	18 46	11 56	3 44
20	17 37	28 33	11 53	24 44	5 28	19 51	13 10	4 46
24	18 31	3 29 29	12 51	25 39	6 23	20 56	14 23	5 48
28	19 25	4 0 25	13 50	26 31	7 18	22 2	15 37	6 49
32	2 20 19	4 1 21	5 14 48	6 27 29	8 8 13	9 23 8	11 16 51	1 7 51
36	21 13	2 18	15 47	28 24	9 8	24 14	18 4	8 52
40	22 7	3 14	16 45	6 29 19	10 4	25 21	19 18	9 53
44	23 1	4 11	17 44	7 0 13	10 59	26 28	20 31	10 53
48	23 55	5 8	18 42	1 8	11 55	27 35	21 44	11 53
52	24 49	6 5	19 40	2 3	12 51	28 43	22 57	12 53
56	25 42	7 2	20 38	2 57	13 47	9 29 51	24 10	13 53

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 26 36	4 7 59	5 21 37	7 3 52	8 14 43	10 0 59	11 25 22	1 14 53
4	27 30	8 56	22 35	4 46	15 39	2 8	26 34	15 52
8	28 24	9 53	23 33	5 41	16 35	3 17	27 46	16 51
12	2 29 18	10 50	24 31	6 35	17 32	4 26	11 28 58	17 49
16	3 0 12	11 47	25 29	7 29	18 29	5 36	0 0 10	18 48
20	1 6	12 45	26 27	8 23	19 26	6 45	1 22	19 46
24	2 0	13 42	27 25	9 18	20 23	7 55	2 33	20 44
28	2 54	14 40	28 22	10 12	21 20	9 6	3 44	21 42
32	3 3 48	4 15 38	5 29 20	7 11 6	8 22 18	10 10 16	0 4 54	1 22 40
36	4 42	16 35	6 0 18	12 0	23 16	11 27	6 5	23 37
40	5 37	17 33	1 15	12 54	24 14	12 38	7 15	24 34
44	6 31	18 31	2 13	13 48	25 12	13 50	8 24	25 31
48	7 25	19 29	3 10	14 42	26 11	15 2	9 34	26 28
52	8 19	20 27	4 7	15 36	27 9	16 14	10 43	27 25
56	9 14	21 25	5 4	16 30	28 8	17 26	11 52	28 21

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 10 8	4 22 23	6 6 1	7 17 24	8 29 7	10 18 38	0 13 1	1 29 1
4	11 3	23 21	6 58	18 18	9 0 7	19 51	14	2 0 13
8	11 57	24 20	7 55	19 11	1 7	21 3	15 17	1 9
12	12 52	25 18	8 52	20 5	2 7	22 16	16 25	2 5
16	13 46	26 16	9 49	20 59	3 7	23 29	17 32	3 1
20	14 41	27 15	10 45	21 53	4 7	24 42	18 39	3 56
24	15 36	28 13	11 42	22 47	5 8	25 55	19 46	4 52
28	16 31	4 29 12	12 39	23 41	6 9	27 8	20 53	5 4
32	3 17 26	5 0 10	6 13 35	7 24 35	9 7 11	10 28 20	0 21 5	2 6 42
36	18 21	1 9	14 31	25 29	8 12	10 29 34	23 4	7 37
40	19 16	2 7	15 27	26 23	9 14	11 0 50	24 9	8 32
44	20 11	3 6	16 23	27 18	10 16	2 4	25 14	9 2
48	21 7	4 4	17 19	28 12	11 1	3 18	26 19	10 22
52	22 2	5 3	18 15	7 29 6	12 22	4 32	27 24	11 16
56	22 58	6 1	19 11	8 0 0	13 25	5 46	28 28	12 11
60	3 23 53	5 7 0	6 20 7	8 0 55	9 14 28	11 7 0	0 29 32	2 13 5

PROPORTIONAL PARTS

Variation in 4 mins :	0°-51′	0°-57′	1 -0′	1°-4′	1°-7′	1°-11′	1°-14′
Variation in 3 mins.	40′	43′	45′	48′	50′	53′	55′
" " 2 mins.	27	29	30	32	34	36	37
" " 1 min.	14	14	15	16	17	18	19

Ascendant for Latitude 16° 0′ North

(For Kurnool 15° N 50′ Machil·patnam 16° N 09′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 13 31	3 24 10	5 7 0	6 19 50	8 0 29	9 14 5	11 7 0	0 29 55
4	14 25	25 6	7 58	20 45	1 24	15 9	8 15	1 0 58
8	15 19	26 1	8 56	21 40	2 18	16 14	9 29	2 2
12	16 13	26 57	9 54	22 35	3 13	17 19	10 44	3 5
16	17 7	27 52	10 53	23 30	4 7	18 24	11 59	4 7
20	18 1	28 48	11 51	24 25	5 2	19 29	13 13	5 10
24	18 55	3 29 44	12 49	25 20	5 57	20 35	14 28	6 12
28	19 49	4 0 40	13 47	26 15	6 52	21 41	15 42	7 14
32	2 20 43	4 1 36	5 14 45	6 27 10	8 7 47	9 22 47	11 16 56	1 8 16
36	21 37	2 32	15 43	28 5	8 42	23 54	18 10	9 17
40	22 31	3 28	16 41	28 59	9 38	25 1	19 24	10 18
44	23 25	4 25	17 39	6 29 54	10 33	26 8	20 38	11 18
48	24 19	5 21	18 37	7 0 48	11 29	27 16	21 52	12 19
52	25 12	6 17	19 35	1 42	12 25	28 24	23 6	13 19
56	26 6	7 14	20 33	2 37	13 20	9 29 33	24 19	14 19

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 27 0	4 8 11	5 21 31	7 3 31	8 14 17	10 0 41	11 25 32	1 15 18
4	27 54	9 7	22 28	4 25	15 13	1 50	26 45	16 17
8	28 48	10 4	23 26	5 19	16 9	3 0	27 58	17 16
12	2 29 41	11 1	24 23	6 14	17 6	4 9	11 29 10	18 15
16	3 0 35	11 58	25 21	7 8	18 3	5 19	0 0 22	19 14
20	1 29	12 55	26 19	8 2	19 0	6 30	1 34	20 12
24	2 23	13 52	27 16	8 56	19 57	7 40	2 46	21 10
28	3 17	14 49	28 13	9 49	20 54	8 51	3 58	22 8
32	3 4 11	4 15 47	5 29 11	7 10 43	8 21 52	10 10 2	0 5 9	1 23 6
36	5 4	16 44	6 0 8	11 37	22 50	11 14	6 20	24 3
40	5 58	17 41	1 5	12 31	23 48	12 26	7 30	25 0
44	6 52	18 39	2 2	13 25	24 46	13 38	8 41	25 57
48	7 46	19 37	2 59	14 19	25 45	14 50	9 51	26 54
52	8 41	20 34	3 56	15 12	26 44	16 2	11 0	27 51
56	9 35	21 32	4 53	16 6	27 43	17 15	12 10	28 47

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 10 29	4 22 30	6 5 49	7 17 0	8 28 42	10 18 28	0 13 19	1 29 43
4	11 23	23 27	6 46	17 54	8 29 41	19 41	14 27	2 0 40
8	12 18	24 25	7 43	18 48	9 0 41	20 54	15 36	1 35
12	13 12	25 23	8 39	19 41	1 41	22 8	16 44	2 31
16	14 6	26 21	9 35	20 35	2 42	23 22	17 52	3 27
20	15 1	27 19	10 32	21 29	3 42	24 36	18 59	4 22
24	15 55	28 17	11 28	22 23	4 43	25 50	20 6	5 18
28	16 50	4 29 15	12 24	23 17	5 44	27 4	21 13	6 13
32	3 17 45	5 0 13	6 13 20	24 11	9 6 46	10 28 18	0 22 19	2 7 8
36	18 40	1 11	14 16	25 5	7 48	10 29 32	23 25	8 3
40	19 35	2 9	15 12	25 59	8 50	11 0 47	24 31	8 58
44	20 30	3 7	16 8	26 53	9 52	2 1	25 36	9 53
48	21 25	4 6	17 3	27 47	10 55	3 16	26 41	10 47
52	22 20	5 4	17 59	28 41	11 58	4 31	27 46	11 42
56	23 15	6 2	18 54	7 29 35	13 2	5 45	28 51	12 36
60	3 24 10	5 7 0	6 19 50	8 0 29	9 14 5	11 7 0	0 29 55	2 13 31

PROPORTIONAL PARTS

Variation in 4 mins.	0°–54′	0°-57′	1°–0′	1°–4′	1°–7′	1°–11′	1°–14′
Variation in 3 mins.	40′	43′	45′	48′	50′	53′	55′
„ „ 2 mins.	27	29	30	32	34	36	37
„ 1 min.	14	14	15	16	17	18	19

Ascendant for Latitude 17° 0′ North

(For Rangoon, 16°N 47′, Kakinada 16°N57′ Rajahmundry 17°N0′, etc.)

Minute	SIDEREAL TIME							
	0h	**3h**	**6h**	**9h**	**12h**	**15h**	**18h**	**21h**
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 13 56	3 24 27	5 7 0	6 19 33	8 0 4	9 13 42	11 7 0	1 0 18
4	14 50	25 22	7 58	20 28	0 58	14 46	8 15	1 22
8	15 45	26 17	8 56	21 23	1 52	15 51	9 31	2 26
12	16 39	27 13	9 53	22 18	2 47	16 56	10 46	3 29
16	17 33	28 8	10 51	23 12	3 41	18 1	12 1	4 32
20	18 26	29 4	11 49	24 7	4 36	19 7	13 17	5 35
24	19 20	3 29 59	12 46	25 2	5 31	20 13	14 32	6 37
28	20 14	4 0 55	13 44	25 56	6 26	21 19	15 47	7 39
32	2 21 8	4 1 50	5 14 42	6 26 51	8 7 21	9 22 26	11 17 2	1 8 41
36	22 2	2 46	15 39	27 45	8 16	23 33	18 17	9 42
40	22 55	3 42	16 37	28 40	9 11	24 41	19 31	10 43
44	23 49	4 38	17 34	6 29 34	10 7	25 48	20 46	11 44
48	24 43	5 34	18 32	7 0 28	11 2	26 56	22 0	12 44
52	25 36	6 30	19 29	1 22	11 58	28 5	23 15	13 45
56	26 30	7 26	20 27	2 16	12 54	9 29 14	24 28	14 44
	1h	**4h**	**7h**	**10h**	**13h**	**16h**	**19h**	**22h**
0	2 27 24	4 8 23	5 21 24	7 3 10	8 13 50	10 0 23	11 25 42	1 15 44
4	28 17	9 19	22 22	4 4	14 46	1 32	26 56	16 44
8	2 29 11	10 15	23 19	4 58	15 43	2 42	28 9	17 43
12	3 0 4	11 12	24 16	5 52	16 39	3 52	11 29 22	18 41
16	0 58	12 9	25 13	6 46	17 36	5 3	0 0 35	19 40
20	1 52	13 5	26 10	7 40	18 33	6 14	1 48	20 38
24	2 45	14 2	27 7	8 33	19 30	7 25	3 0	21 36
28	3 39	14 59	28 4	9 27	20 28	8 36	4 12	22 34
32	3 4 33	4 15 56	5 29 1	7 10 21	8 21 26	10 9 48	0 5 24	1 23 32
36	5 27	16 53	5 29 58	11 15	22 24	11 0	6 35	24 30
40	6 20	17 50	6 0 55	12 8	23 22	12 12	7 46	25 27
44	7 14	18 47	1 51	13 2	24 20	13 25	8 57	26 24
48	8 8	19 44	2 48	13 55	25 19	14 38	10 7	27 21
52	9 2	20 41	3 45	14 49	26 17	15 51	11 18	28 17
56	9 56	21 38	4 41	15 43	27 16	17 4	12 28	1 29 14
	2h	**5h**	**8h**	**11h**	**14h**	**17h**	**20h**	**23h**
0	3 10 50	4 22 36	6 5 37	7 16 36	8 28 16	10 18 18	0 13 37	2 0 10
4	11 44	23 33	6 34	17 30	8 29 16	19 32	14 46	1 6
8	12 38	24 31	7 30	18 24	9 0 15	20 46	15 55	2 2
12	13 32	25 28	8 26	19 17	1 16	22 0	17 4	2 58
16	14 26	26 26	9 22	20 11	2 16	23 14	18 12	3 53
20	15 20	27 23	10 18	21 5	3 17	24 29	19 19	4 49
24	16 15	28 21	11 14	21 58	4 18	25 43	20 27	5 44
28	17 9	4 29 18	12 10	22 52	5 19	26 59	21 34	6 39
32	3 18 4	5 0 16	6 13 5	7 23 46	9 6 21	10 28 13	0 22 41	2 7 34
36	18 58	1 14	14 1	24 40	7 23	10 29 28	23 47	8 29
40	19 53	2 11	14 56	25 34	8 25	11 0 43	24 53	9 24
44	20 48	3 9	15 52	26 27	9 28	1 58	25 59	10 19
48	21 42	4 7	16 47	27 21	10 31	3 14	27 4	11 13
52	22 37	5 5	17 43	28 15	11 34	4 29	28 9	12 8
56	23 32	6 2	18 38	7 29 10	12 38	5 45	0 29 14	13 2
60	3 24 27	5 7 0	6 19 33	8 0 4	9 13 42	11 7 0	1 0 18	2 13 56

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 55′	0° – 58′	1° – 1′	1° – 5′	1° – 8′	1° – 12′	1° – 15′
Variation in 3 mins.	41′	43′	46′	49′	51′	54′	56′
" " 2 mins.	28	29	31	33	34	36	38
" " 1 min.	14	15	15	16	17	18	19

Ascendant for Latitude 17° 30′ North

(For Hyde.abad 17°N26′, Sholapur 17°N39′, Visakhapatnam 17°N43′, etc.)

Minute	SIDEREAL TIME							
	0h	**3h**	**6h**	**9h**	**12h**	**15h**	**18h**	**21h**
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 14 9	3 24 36	5 7 0	6 19 24	7 29 51	9 13 30	11 7 0	1 0 30
4	15 3	25 31	7 58	20 19	8 0 45	14 31	8 15	1 34
8	15 58	26 25	8 56	21 14	1 39	15 39	9 31	2 38
12	16 52	27 21	9 53	22 9	2 34	16 45	10 47	3 41
16	17 46	28 16	10 50	23 3	3 28	17 50	12 2	4 44
20	18 39	3 29 12	11 48	23 58	4 23	18 57	13 18	5 47
24	19 33	4 0 7	12 45	24 53	5 18	20 2	14 34	6 49
28	20 27	1 2	13 43	25 47	6 13	21 8	15 49	7 51
32	2 21 20	4 1 57	5 14 40	6 26 42	8 7 8	9 22 15	11 17 5	1 8 53
36	22 14	2 53	15 37	27 36	8 3	23 23	18 20	9 55
40	23 7	3 49	16 35	28 30	8 58	24 31	19 35	10 56
44	24 1	4 45	17 32	6 29 24	9 54	25 38	20 50	11 57
48	24 55	5 41	18 30	7 0 18	10 49	26 46	22 5	12 57
52	25 48	6 36	19 26	1 12	11 45	27 55	23 19	13 58
56	26 42	7 32	20 24	2 6	12 41	9 29 4	24 33	14 58

Minute	**1h**	**4h**	**7h**	**10h**	**13h**	**16h**	**19h**	**22h**
0	2 27 36	4 8 29	5 21 21	7 3 0	8 13 37	10 0 14	11 25 47	1 15 57
4	28 29	9 25	22 19	3 54	14 33	1 23	27 1	16 57
8	2 29 23	10 21	23 16	4 48	15 30	2 33	28 15	17 56
12	3 0 16	11 18	24 12	5 41	16 26	3 44	11 29 28	18 55
16	1 10	12 14	25 9	6 35	17 23	4 55	0 0 41	19 53
20	2 3	13 10	26 6	7 29	18 20	6 6	1 54	20 51
24	2 57	14 7	27 3	8 22	19 17	7 17	3 7	21 49
28	3 51	15 4	28 0	9 16	20 15	8 29	4 19	22 47
32	3 4 44	4 16 1	5 28 56	7 10 10	8 21 13	10 9 41	0 5 31	1 23 45
36	5 38	16 57	5 29 53	11 3	22 11	10 53	6 43	24 43
40	6 31	17 54	6 0 50	11 56	23 9	12 6	7 51	25 40
44	7 25	18 51	1 46	12 50	24 7	13 19	9 5	26 37
48	8 19	19 48	2 43	13 44	25 6	14 32	10 16	27 34
52	9 13	20 44	3 39	14 37	26 4	15 45	11 27	28 30
56	10 7	21 41	4 35	15 31	27 3	16 59	12 37	1 29 27

Minute	**2h**	**5h**	**8h**	**11h**	**14h**	**17h**	**20h**	**23h**
0	3 11 0	4 22 39	6 5 31	7 16 24	8 28 3	10 18 13	0 13 46	2 0 23
4	11 54	23 36	6 28	17 18	8 29 3	19 27	14 55	1 19
8	12 48	24 34	7 24	18 12	9 0 2	20 41	16 5	2 15
12	13 42	25 31	8 19	19 5	1 3	21 56	17 14	3 11
16	14 36	26 28	9 15	19 59	2 3	23 10	18 22	4 6
20	15 30	27 25	10 11	20 52	3 4	24 25	19 29	5 2
24	16 24	28 23	11 7	21 45	4 5	25 40	20 37	5 57
28	17 18	4 29 20	12 3	22 39	5 6	26 55	21 45	6 52
32	3 18 13	5 0 18	6 12 58	7 23 33	9 6 8	10 28 10	0 22 51	2 7 47
36	19 7	1 15	13 54	24 27	7 10	10 29 26	23 58	8 42
40	20 2	2 12	14 48	25 21	8 12	11 0 42	25 4	9 37
44	20 57	3 10	15 44	26 14	9 15	1 57	26 10	10 32
48	21 51	4 8	16 39	27 8	10 18	3 13	27 15	11 26
52	22 46	5 5	17 35	28 2	11 22	4 29	28 21	12 21
56	23 41	6 2	18 30	28 57	12 26	5 45	0 29 26	13 15
60	3 24 36	5 7 0	6 19 24	7 29 51	9 13 30	11 7 0	1 0 30	2 14 9

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 54′	0° – 56′	0° – 57′	0° – 59′	1° – 0′	1° – 2′	1° – 3′	1° – 5′
Variation in 3 mins :	40′	42′	43′	44′	45′	46′	47′	49′
,, ,, 2 mins :	27	28	29	30	30	31	32	33
,, , 1 min.	14	14	14	15	15.	16	16	16

Ascendant for Latitude 18° 0′ North

(For Warangal 17° N 58′, Vizianagram 18° N 7′ etc.)

Minute	SIDEREAL TIME							
	0h	**3h**	**6h**	**9h**	**12h**	**15h**	**18h**	**21h**
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 14 22	3 24 44	5 7 0	6 19 16	7 29 38	9 13 18	11 7 0	1 0 42
4	15 16	25 39	7 57	20 11	8 0 32	14 22	8 16	1 46
8	16 10	26 34	8 55	21 5	1 26	15 27	9 32	2 50
12	17 4	27 29	9 52	22 0	2 21	16 33	10 48	3 54
16	17 58	28 24	10 49	22 54	3 15	17 38	12 4	4 57
20	18 52	3 29 19	11 47	23 49	4 10	18 44	13 20	6 0
24	19 46	4 0 14	12 41	24 43	5 5	19 51	14 36	7 2
28	20 39	1 9	13 41	25 38	5 59	20 57	15 52	8 4
32	2 21 33	4 2 5	5 14 38	6 26 32	8 6 54	9 22 4	11 17 8	1 9 6
36	22 26	3 0	15 36	27 26	7 49	23 12	18 23	10 8
40	23 20	3 56	16 33	28 20	8 45	24 20	19 39	11 9
44	24 14	4 51	17 30	6 29 14	9 40	25 28	20 54	12 10
48	25 7	5 47	18 27	7 0 8	10 36	26 36	22 9	13 10
52	26 1	6 43	19 24	1 2	11 31	27 45	23 24	14 11
56	26 54	7 39	20 21	1 56	12 27	9 28 55	24 38	15 11
	1h	**4h**	**7h**	**10h**	**13h**	**16h**	**19h**	**22h**
0	2 27 47	4 8 35	5 21 18	2 49	8 13 23	10 0 4	11 25 53	1 16 10
4	28 41	9 31	22 15	3 43	14 19	1 14	27 7	17 10
8	2 29 34	10 27	23 12	4 37	15 16	2 24	28 21	18 9
12	3 0 28	11 23	24 9	5 31	16 13	3 35	11 29 35	19 8
16	1 21	12 19	25 5	6 24	17 9	4 46	0 0 48	20 7
20	2 15	13 15	26 2	7 18	18 6	5 57	2 1	21 5
24	3 8	14 12	26 59	8 11	19	7 9	3 14	22 3
28	4 2	15 8	27 55	9 5	20	8 21	4 27	23 1
32	3 4 55	4 16 5	5 28 52	7 9 58	8 20 59	10 9 33	0 5 39	1 23 59
36	5 49	17 1	5 29 48	10 52	21 57	10 46	6 51	24 56
40	6 42	17 58	6 0 45	11 45	22 55	11 59	8 3	25 53
44	7 36	18 55	1 41	12 39	23 53	13 12	9 14	26 50
48	8 29	19 51	2 37	13 32	24 52	14 25	10 25	27 47
52	9 23	20 48	3 33	14 26	25 51	15 39	11 36	28 44
56	10 17	21 45	4 29	15 19	8 26 50	16 53	12 46	1 29 41
	2h	**5h**	**8h**	**11h**	**14h**	**17h**	**20h**	**23h**
0	3 11 11	4 22 42	6 5 25	7 16 13	8 27 49	10 18 7	0 13 56	2 0 37
4	12 4	23 39	6 21	17 6	28 49	19 22	15 5	1 33
8	12 58	24 36	7 17	17 59	8 29 49	20 36	16 15	2 29
12	13 52	25 33	8 13	18 53	9 0 50	21 51	17 24	3 24
16	14 46	26 30	9 9	19 46	1 50	23 6	18 32	4 20
20	15 40	27 27	10 4	20 40	2 51	24 21	19 40	5 15
24	16 31	28 24	11 0	21 34	3 52	25 37	20 48	6 11
28	17 28	4 29 22	11 55	22 27	4 54	26 52	21 56	7 6
32	3 18 22	5 0 19	6 12 51	7 23 21	9 5 56	10 28 8	0 23 3	2 8 1
36	19 17	1 16	13 46	24 14	6 58	10 29 24	24 9	8 55
40	20 11	2 13	14 41	25 8	8 0	11 0 40	25 16	9 50
44	21 6	3 11	15 36	26 2	9 3	1 56	26 22	10 45
48	22 0	4 8	16 31	26 56	10 6	3 12	27 27	11 39
52	22 55	5 5	17 26	27 50	11 10	4 28	28 33	12 34
56	23 49	6 3	18 21	28 44	12 14	5 44	0 29 38	13 28
60	3 24 44	5 7 0	6 19 16	7 29 38	9 13 18	11 7 0	1 0 42	2 14 22

PROPORTIONAL PARTS

Variation in 4 mins. :	1°-6′	1°-8′	1°-9′	1°-11′	1°-12′	1°-14′	1°-15′	1°-16′
Variation in 3 mins.	49′	51′	52′	53′	54′	55′	56′	57′
" " 2 mins.	34	34	35	36	36	37	38	38
" " 1 min.	17	17	17	18	18	19	19	19

Ascendant for PUNE Latitude 18° 31′ North

(For all other places in or near 18° N 31′ N, latitude)

SIDEREAL TIME

Minutes	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 14 35	3 24 53	5 7 0	6 19 7	7 29 25	9 13 5	11 7 0	1 0 55
4	15 29	25 47	7 57	20 2	8 0 19	14 10	8 17	1 59
8	16 23	26 42	8 54	20 56	1 13	15 15	9 33	3 3
12	17 17	27 37	9 51	21 51	2 7	16 21	10 50	4 7
16	18 11	28 32	10 48	22 45	3 2	17 26	12 6	5 10
20	19 5	3 29 27	11 45	23 40	3 56	18 32	13 22	6 13
24	19 59	4 0 22	12 42	24 34	4 51	19 39	14 39	7 15
28	20 52	1 17	13 39	25 28	5 46	20 46	15 55	8 17
32	2 21 46	4 2 12	5 14 36	6 26 22	8 6 41	9 21 53	11 17 11	1 9 19
36	22 39	3 7	15 33	27 16	7 36	23 1	18 27	10 21
40	23 33	4 3	16 30	28 10	8 31	24 9	19 43	11 22
44	24 26	4 58	17 27	29 4	9 26	25 17	20 58	12 23
48	25 20	5 54	18 24	6 29 58	10 22	26 26	22 14	13 24
52	26 13	6 49	19 21	7 0 51	11 17	27 35	23 29	14 24
56	27 6	7 45	20 18	1 45	12 13	28 45	24 44	15 24

Minutes	1h	4h	7h	10h	13h	16h	19h	22h
0	2 27 59	4 8 41	5 21 15	7 2 39	8 13 9	9 29 54	11 25 59	1 16 24
4	28 53	9 37	22 11	3 32	14 5	10 1 4	27 13	17 24
8	2 29 46	10 33	23 8	4 26	15 2	2 15	28 27	18 23
12	3 0 40	11 29	24 5	5 20	15 59	3 26	11 29 41	19 22
16	1 33	12 25	25 1	6 13	16 55	4 37	0 0 55	20 21
20	2 27	13 21	25 58	7 7	17 52	5 49	2 8	21 19
24	3 20	14 17	26 54	8 0	18 50	7 1	3 22	22 17
28	4 13	15 13	27 50	8 53	19 47	8 13	4 35	23 15
32	3 5 7	4 16 10	5 28 47	7 9 47	8 20 45	10 9 25	0 5 47	1 24 13
36	6 0	17 6	5 29 43	10 40	21 43	10 38	6 59	25 10
40	6 53	18 2	6 0 39	11 33	22 41	11 52	8 11	26 7
44	7 47	18 59	1 35	12 27	23 39	13 5	9 23	27 4
48	8 40	19 55	2 31	13 20	24 38	14 19	10 34	28 1
52	9 34	20 52	3 27	14 14	25 37	15 33	11 45	28 58
56	10 28	21 49	4 23	15 7	26 36	16 47	12 56	1 29 55

Minutes	2h	5h	8h	11h	14h	17h	20h	23h
0	3 11 21	4 22 45	6 5 19	7 16 1	8 27 36	10 18 1	0 14 6	2 0 51
4	12 15	23 42	6 15	16 54	28 36	19 16	15 15	1 47
8	13 9	24 39	7 11	17 47	8 29 36	20 31	16 25	2 43
12	14 2	25 36	8 6	18 40	9 0 36	21 46	17 34	3 38
16	14 56	26 33	9 2	19 34	1 37	23 2	18 43	4 34
20	15 50	27 30	9 57	20 27	2 38	24 17	19 51	5 29
24	16 44	28 26	10 53	21 21	3 39	25 33	20 59	6 24
28	17 38	4 29 24	11 48	22 14	4 41	26 49	22 7	7 19
32	3 18 32	5 0 21	6 12 43	7 23 8	9 5 43	10 28 5	0 23 14	2 8 14
36	19 26	1 18	13 38	24 1	6 45	10 29 21	24 21	9 9
40	20 20	2 15	14 33	24 55	7 47	11 0 38	25 28	10 4
44	21 15	3 12	15 28	25 49	8 50	1 54	26 34	10 58
48	22 9	4 9	16 23	26 43	9 53	3 10	27 39	11 53
52	23 4	5 6	17 18	27 37	10 57	4 27	28 45	12 47
56	23 58	6 3	18 13	28 31	12 1	5 43	0 29 50	13 41
60	3 24 53	5 7 0	6 19 7	7 29 25	9 13 5	11 7 0	1 0 55	2 14 35

PROPORTIONAL PARTS

Variation in 4 mins.	0°-54′	0°-56′	0°-57′	0°-59′	1°-0′	1°-2′	1°-3′	1°-5′
Variation in 3 mins.	40′	42′	43′	44′	45′	46′	47′	49′
„ „ 2 mins.	27	28	29	30	30	31	32	33
„ 1 min.	14	14	14	15	15	16	16	16

Ascendant for Latitude 19° 0′ North

(For BOMBAY 18° N 58′, Ahmadnagar & Jagdalpur 19° N 5′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 14 48	3 25 1	5 7 0	6 18 59	7 29 12	9 12 53	11 7 0	1 1 7
4	15 42	25 55	7 57	19 54	8 0 6	13 58	8 17	2 11
8	16 36	26 50	8 54	20 48	1 0	15 3	9 34	3 15
12	17 30	27 45	9 51	21 42	1 54	16 9	10 51	4 19
16	18 24	28 39	10 48	22 36	2 49	17 15	12 7	5 22
20	19 17	3 29 34	11 44	23 31	3 43	18 21	13 24	6 25
24	20 11	4 0 29	12 41	24 25	4 38	19 28	14 41	7 28
28	21 4	1 24	13 38	25 19	5 33	20 35	15 57	8 30
32	2 21 58	4 2 19	5 14 35	6 26 13	8 6 28	9 21 42	11 17 13	1 9 32
36	22 51	3 14	15 32	27 6	7 23	22 50	18 30	10 34
40	23 45	4 9	16 28	28 0	8 18	23 58	19 46	11 35
44	24 38	5 5	17 25	28 54	9 13	25 7	21 2	12 3
48	25 32	6 0	18 22	6 29 48	10 9	26 16	22 18	13 37
52	26 25	6 55	19 19	7 0 41	11 4	27 25	23 33	14 37
56	27 18	7 51	20 15	1 35	12 0	28 35	24 48	15 37
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 28 11	4 8 46	5 21 12	7 2 29	8 12 56	9 29 45	11 26 3	1 16 37
4	29 5	9 42	22 8	3 22	13 52	10 0 55	27 18	17 37
8	2 29 58	10 38	23 5	4 16	14 49	2 6	28 33	18 36
12	3 0 51	11 34	24 1	5 9	15 45	3 17	11 29 47	19 35
16	1 44	12 30	24 58	6 2	16 42	4 29	0 1 1	20 34
20	2 38	13 26	25 54	6 56	17 39	5 41	2 15	21 32
24	3 31	14 22	26 50	7 49	18 36	6 53	3 29	22 30
28	4 24	15 18	27 46	8 42	19 34	8 5	4 42	23 28
32	3 5 18	4 16 14	5 28 42	7 9 36	8 20 32	10 9 18	0 5 55	1 24 26
36	6 11	17 10	5 29 38	10 29	21 30	10 31	7 7	25 24
40	7 4	18 6	6 0 34	11 22	22 28	11 45	8 19	26 21
44	7 58	19 2	1 30	12 16	23 26	12 59	9 31	27 18
48	8 51	19 59	2 26	13 9	24 25	14 13	10 43	28 15
52	9 44	20 55	3 22	14 2	25 24	15 27	11 54	1 29 11
56	10 38	21 52	4 18	14 55	26 23	16 42	13 5	2 0 8
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 11 31	4 22 48	6 5 14	7 15 49	8 27 23	10 17 56	0 14 15	2 1 4
4	12 25	23 45	6 9	16 42	28 23	19 12	15 25	2 0
8	13 19	24 41	7 5	17 35	8 29 23	20 27	16 35	2 56
12	14 12	25 38	8 0	18 28	9 0 23	21 42	17 44	3 51
16	15 6	26 35	8 55	19 22	1 24	22 58	18 53	4 47
20	16 0	27 32	9 51	20 15	2 25	24 14	20 2	5 42
24	16 54	28 28	10 46	21 9	3 26	25 30	21 10	6 37
28	17 47	4 29 25	11 41	22 2	4 28	26 47	22 18	7 32
32	3 18 41	5 0 22	6 12 36	7 22 56	9 5 30	10 28 3	0 23 25	2 8 27
36	19 35	1 19	13 31	23 49	6 32	10 29 19	24 32	9 22
40	20 29	2 16	14 26	24 43	7 35	11 0 36	25 39	10 17
44	21 24	3 12	15 21	25 36	8 38	1 53	26 45	11 11
48	22 18	4 9	16 15	26 30	9 41	3 9	27 51	12 6
52	23 12	5 6	17 10	27 24	10 45	4 26	0 28 57	13 0
56	24 6	6 3	18 5	28 18	11 49	5 43	1 0 2	13 54
60	3 25 1	5 7 0	6 18 59	7 29 12	9 12 53	11 7 0	0 1 7	2 14 48

PROPORTIONAL PARTS

Variation in 4 mins :	1° – 6′	1° – 8′	1° – 9′	1° – 11′	1° – 12′	1° – 14′	1° – 15′	1° – 17′
Variation in 3 mins.	49′	51′	52′	53′	54′	55′	56′	58′
„ „ 2 mins.	33	34	35	36	36	37	38	39
„ „ 1 min.	17	17	17	18	18	19	19	19

Ascendant for Latitude 19° 30′ North

(For all places in or near 19° N 30′ latitude.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 15 1	3 25 10	5 7 0	6 18 51	7 28 59	9 12 40	11 7 0	1 1 19
4	15 55	26 4	7 57	19 45	7 29 53	13 45	8 17	2 24
8	16 49	26 58	8 54	20 39	8 0 47	14 51	9 34	3 28
12	17 43	27 53	9 50	21 33	1 41	15 57	10 51	4 32
16	18 37	28 47	10 47	22 27	2 36	17 3	12 8	5 35
20	19 30	3 29 42	11 43	23 22	3 30	18 9	13 26	6 38
24	20 24	4 0 37	12 40	24 15	4 25	19 16	14 43	7 41
28	21 17	1 31	13 37	25 9	5 20	20 23	16 0	8 45
32	2 22 11	4 2 26	5 14 33	6 26 3	8 6 14	9 21 31	11 17 17	1 9 45
36	23 4	3 21	15 30	26 56	7 9	22 39	18 34	10 48
40	23 58	4 16	16 26	27 50	8 4	23 47	19 50	11 49
44	24 51	5 11	17 23	28 44	8 59	24 56	21 7	12 49
48	25 44	6 6	18 20	6 29 38	9 55	26 5	22 23	13 50
52	26 37	7 1	19 16	7 0 31	10 50	27 15	23 38	14 51
56	27 30	7 57	20 12	1 25	11 46	28 25	24 53	15 51

	1h	4h	7h	10h	13h	16h	19h	22h
0	2 28 23	4 8 52	5 21 9	7 2 18	8 12 44	9 29 35	11 26 9	1 16 51
4	2 29 17	9 48	22 5	3 11	13 38	10 0 45	27 24	17 51
8	3 0 10	10 44	23 1	4 5	14 35	1 56	28 39	18 50
12	1 3	11 39	23 57	4 58	15 31	3 8	11 29 54	19 49
16	1 56	12 35	24 54	5 51	16 28	4 20	0 1 8	20 48
20	2 50	13 31	25 50	6 45	17 25	5 32	2 22	21 46
24	3 43	14 27	26 46	7 38	18 22	6 44	3 36	22 44
28	4 36	15 22	27 41	8 31	19 20	7 56	4 49	23 42
32	3 5 29	4 16 18	5 28 37	7 9 24	8 20 18	10 9 10	0 6 2	1 24 40
36	6 22	17 14	5 29 33	10 17	21 16	10 24	7 15	25 38
40	7 15	18 10	6 0 29	11 10	22 14	11 38	8 28	26 35
44	8 9	19 6	1 25	12 4	23 12	12 52	9 40	27 32
48	9 2	20 3	2 21	12 57	24 11	14 6	10 52	28 29
52	9 55	20 59	3 16	13 50	25 10	15 21	12 3	1 29 25
56	10 48	21 55	4 12	14 43	26 9	16 36	13 14	2 0 2

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 11 41	4 22 51	6 5 8	7 15 37	8 27 9	10 17 51	0 14 25	2 1 18
4	12 35	23 48	6 3	16 30	28 9	19 6	15 35	2 14
8	13 29	24 44	6 59	17 23	8 29 9	20 22	16 45	3 9
12	14 22	25 41	7 54	18 16	9 0 9	21 38	17 55	4 5
16	15 16	26 37	8 48	19 10	1 10	22 54	19 4	5 1
20	16 10	27 34	9 44	20 3	2 11	24 10	20 13	5 56
24	17 3	28 30	10 39	20 56	3 12	25 27	21 21	6 51
28	17 56	4 29 27	11 34	21 49	4 14	26 43	22 29	7 46
32	3 18 50	5 0 23	6 12 29	7 22 43	9 5 16	10 28 0	0 23 36	2 8 41
36	19 44	1 20	13 23	23 36	6 19	10 29 17	24 44	9 36
40	20 38	2 17	14 18	24 30	7 22	11 0 34	25 51	10 30
44	21 33	3 13	15 13	25 23	8 25	1 51	26 57	11 24
48	22 27	4 10	16 7	26 17	9 26	3 8	28 3	12 19
52	23 21	5 7	17 2	27 11	10 32	4 25	0 29 9	13 13
56	24 15	6 3	17 57	28 5	11 36	5 43	1 0 14	14 7
60	3 25 10	5 7 0	6 18 51	7 28 59	9 12 40	11 7 0	1 1 19	2 15 1

PROPORTIONAL PARTS

Variation in 4 mins. :	0°−53′	0°−55′	0°−56′	0°−58′	1°−0′	1°−1′	1°−3′	1°−5′
Variation in 3 mins.	40′	41′	42′	43′	45′	46′	47′	49′
,, ,, 2 mins.	27	28	28	29	30	31	32	33
,, ,, 1 min.	13	14	14	15	15	15	16	16

Ascendant for Latitude 20° 0′ North

(For Puri 19° N 48′, Aurangabad 19° N 53′, Nasik 20° N 2′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 15 14	3 25 18	5 7 0	6 18 42	7 28 46	9 12 28	11 7 0	1 1 32
4	16 8	26 12	7 57	19 36	7 29 40	13 33	8 18	2 36
8	17 2	27 6	8 53	20 30	8 0 34	14 39	9 35	3 41
12	17 56	28 1	9 49	21 24	1 28	15 45	10 53	4 45
16	18 49	28 55	10 46	22 18	2 22	16 51	12 10	5 48
20	19 43	3 29 50	11 42	23 12	3 16	17 58	13 28	6 51
24	20 36	4 0 44	12 39	24 6	4 11	19 5	14 45	7 54
28	21 30	1 39	13 35	25 0	5 6	20 12	16 3	8 57
32	2 22 23	4 2 33	5 14 32	6 25 53	8 6 0	9 21 20	11 17 20	1 9 59
36	23 17	3 28	15 28	26 47	6 55	22 28	18 37	11 1
40	24 10	4 23	16 24	27 41	7 50	23 36	19 54	12 2
44	25 3	5 18	17 21	28 34	8 46	24 45	21 10	13 3
48	25 56	6 13	18 17	6 29 27	9 41	25 55	22 27	14 4
52	26 49	7 8	19 13	7 0 21	10 37	27 4	23 43	15 5
56	27 42	8 3	20 9	1 14	11 33	28 14	24 59	16 5

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	2 28 36	4 8 58	5 21 6	7 2 8	8 12 29	9 29 25	11 26 15	1 17 5
4	2 29 29	9 54	22 2	3 1	13 25	10 0 36	27 30	18 4
8	3 0 22	10 49	22 58	3 54	14 21	1 47	11 28 45	19 4
12	1 15	11 44	23 54	4 47	15 18	2 59	0 0 1	20 3
16	2 8	12 40	24 50	5 40	16 14	4 11	1 15	21 1
20	3 1	13 36	25 46	6 34	17 11	5 23	2 30	22 0
24	3 54	14 31	26 41	7 27	18 9	6 36	3 44	22 58
28	4 47	15 27	27 37	8 20	19 6	7 49	4 57	23 56
32	3 5 40	4 16 23	5 28 33	7 9 13	8 20 4	10 9 3	0 6 11	1 24 54
36	6 33	17 19	5 29 29	10 6	21 2	10 16	7 24	25 51
40	7 26	18 14	6 0 24	10 59	22 0	11 30	8 37	26 49
44	8 19	19 10	1 20	11 52	22 59	12 45	9 49	27 46
48	9 13	20 6	2 15	12 45	23 57	14 0	11 1	28 42
52	10 6	21 2	3 11	13 38	24 56	15 15	12 13	1 29 39
56	10 59	21 58	4 6	14 31	25 56	16 30	13 24	2 0 35

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 11 52	4 22 54	6 5 2	7 15 24	8 26 55	10 17 45	0 14 35	2 1 31
4	12 46	23 51	5 57	16 18	27 55	19 1	15 46	2 27
8	13 39	24 47	6 52	17 11	28 55	20 17	16 56	3 23
12	14 33	25 43	7 47	18 4	8 29 56	21 33	18 5	4 19
16	15 26	26 39	8 42	18 57	9 0 57	22 50	19 15	5 14
20	16 19	27 36	9 37	19 50	1 58	24 6	20 24	6 10
24	17 13	28 32	10 32	20 43	2 59	25 23	21 32	7 5
28	18 7	4 29 28	11 27	21 37	4 1	26 40	22 40	8 0
32	3 19 0	5 0 25	6 12 21	7 22 30	9 5 3	10 27 57	0 23 48	2 8 54
36	19 54	1 21	13 16	23 24	6 6	10 29 15	24 56	9 49
40	20 48	2 18	14 10	24 17	7 9	11 0 32	26 2	10 44
44	21 42	3 14	15 4	25 11	8 12	1 50	27 9	11 38
48	22 36	4 11	15 59	26 4	9 15	3 7	28 15	12 32
52	23 30	5 7	16 54	26 58	10 19	4 25	0 29 21	13 26
56	24 24	6 3	17 48	27 52	11 24	5 42	1 0 27	14 20
60	3 25 18	5 7 0	6 18 42	7 28 46	9 12 28	11 7 0	1 1 32	2 15 14

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–6′	1°–8′	1°–9′	1°–11′	1°–12′	1°–14′	1°–15′	1°–17′
Variation in 3 mins.	49′	51′	52′	53′	54′	55′	56′	58′
„ „ 2 mins.	33	34	35	36	36	37	38	38
„ „ 1 min.	17	17	17	18	18	19	19	19

Ascendant for Latitude 20° 30′ North

(For Cuttack 20° N 29′, Akola & Diu 20° N 42′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 15 27	3 25 26	5 7 0	6 18 33	7 23 33	9 12 15	11 7 0	1 1 44
4	16 21	26 20	7 56	19 27	7 29 27	13 20	8 18	2 49
8	17 15	27 14	8 52	20 21	8 0 21	14 26	9 36	3 54
12	18 9	28 9	9 48	21 15	1 14	15 32	10 54	4 58
16	19 2	29 3	10 45	22 9	2 8	16 39	12 12	6 1
20	19 56	3 29 58	11 41	23 3	3 2	17 45	13 30	7 4
24	20 49	4 0 52	12 37	23 57	3 57	18 52	14 48	8 8
28	21 43	1 46	13 33	24 51	4 52	20 0	16 6	9 11
32	2 22 36	4 2 40	5 14 30	6 25 44	8 5 46	9 21 8	11 17 23	1 10 13
36	23 29	3 35	15 26	26 38	6 41	22 16	18 40	11 15
40	24 22	4 30	16 22	27 31	7 36	23 24	19 57	12 16
44	25 15	5 25	17 18	28 24	8 32	24 33	21 14	13 17
48	26 8	6 19	18 14	6 29 17	9 27	25 43	22 32	14 18
52	27 1	7 14	19 10	7 0 11	10 23	26 53	23 48	15 19
56	27 54	8 9	20 6	1 4	11 19	28 4	25 4	16 19
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 28 48	4 9 4	5 21 2	7 1 58	8 12 15	9 29 15	11 26 20	1 17 19
4	2 29 41	10 0	21 58	2 51	13 11	10 0 26	27 36	18 18
8	3 0 34	10 55	22 54	3 44	14 7	1 37	11 28 51	19 18
12	1 27	11 50	23 50	4 37	15 4	2 49	0 0 7	20 17
16	2 20	12 45	24 46	30	16 0	4 2	1 22	21 15
20	3 13	13 41	25 42	6 23	16 57	5 14	2 37	22 14
24	4 5	14 36	26 37	7 16	17 55	6 27	3 51	23 12
28	4 58	15 32	27 33	8 8	18 52	7 40	5 5	24 10
32	3 5 51	4 16 27	5 28 28	7 9 1	8 19 50	10 8 54	0 6 19	1 25 8
36	6 44	17 23	5 29 24	9 54	20 48	10 8	7 33	26 5
40	7 37	18 18	6 0 19	10 47	21 46	11 23	8 46	27 3
44	8 30	19 14	1 15	11 40	22 45	12 38	9 58	28 0
48	9 24	20 10	2 10	12 33	23 43	13 53	11 10	28 57
52	10 17	21 5	3 6	13 26	24 42	15 8	12 22	1 29 53
56	11 10	22 1	4 1	14 19	25 42	16 24	13 34	2 0 49
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 12 3	4 22 57	6 4 56	7 15 12	8 26 41	10 17 39	0 14 45	2 1 45
4	12 56	23 53	5 51	16 6	27 41	18 55	15 56	2 41
8	13 49	24 49	6 46	16 59	28 41	20 12	17 6	3 37
12	14 43	25 45	7 40	17 52	8 29 42	21 29	18 16	4 33
16	15 36	26 41	8 35	18 45	9 0 43	22 46	19 26	5 28
20	16 29	27 38	9 30	19 38	1 44	24 3	20 35	6 23
24	17 23	28 34	10 25	20 31	2 45	25 20	21 43	7 18
28	18 16	4 29 30	11 20	21 24	3 47	26 37	22 52	8 13
32	3 19 9	5 0 27	6 12 14	7 22 17	9 4 50	10 27 51	0 24 0	2 9 8
36	20 3	1 23	13 8	23 11	5 53	10 29 12	25 8	10 3
40	20 57	2 19	14 2	24 4	6 56	11 0 30	26 14	10 57
44	21 51	3 15	14 56	24 58	7 59	1 48	27 21	11 51
48	22 45	4 11	15 51	25 51	9 2	3 6	28 27	12 45
52	23 38	5 7	16 46	26 45	10 6	4 24	0 29 33	13 39
56	24 32	6 3	17 40	27 39	11 11	5 42	1 0 39	14 33
60	3 25 26	5 7 0	6 18 33	7 23 33	9 12 15	11 7 0	1 1 44	2 15 27

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–53′	0°–55′	0°–56′	0°–58′	1°–0′	1°–1′	1°–3′	1°–5′
Variation in 3 mins.	40	41′	42′	43′	45′	46′	47′	49′
„ „ 2 mins.	27	28	28	29	30	31	32	33
„ „ 1 min.	13	14	14	15	15	15	16	16

Ascendant for Latitude 21° 0′ North

(For NAGPUR 21°N9′, Durg 21°N11′ Surat 21°N12′, etc.)

SIDEREAL TIME

Minute	0h			3h			6h			9h			12h			15h			18h			21h		
	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′
0	2	15	41	3	25	35	5	7	0	6	18	25	7	28	19	9	12	3	11	7	0	1	1	57
4		16	35		26	29		7	56		19	19	7	29	13		13	8		8	18		3	2
8		17	29		27	23		8	52		20	13	8	0	7		14	14		9	37		4	7
12		18	22		28	17		9	48		21	7		1	1		15	20		10	55		5	11
16		19	16	3	29	11		10	44		22	0		1	55		16	26		12	14		6	15
20		20	9	4	0	5		11	40		22	54		2	49		17	33		13	32		7	18
24		21	2		0	59		12	36		23	47		3	44		18	40		14	50		8	21
28		21	56		1	53		13	32		24	41		4	38		19	48		16	8		9	24
32	2	22	49	4	2	48	5	14	28	6	25	34	8	5	33	9	20	56	11	17	26	1	10	26
36		23	42		3	42		15	24		26	28		6	28		22	5		18	44		11	28
40		24	35		4	37		16	20		27	21		7	23		23	14		20	1		12	30
44		25	28		5	31		17	16		28	14		8	18		24	23		21	19		13	31
48		26	21		6	26		18	12	6	29	7		9	13		25	33		22	36		14	32
52		27	14		7	21		19	8	7	0	0		10	9		26	43		23	53		15	32
56		28	7		8	16		20	4		0	54		11	5		27	54		25	10		16	33

	1h			4h			7h			10h			13h			16h			19h			22h		
0	2	29	0	4	9	10	5	21	0	7	1	47	8	12	1	9	29	5	11	26	26	1	17	33
4	2	29	53		10	5		21	56		2	40		12	57	10	0	16		27	42		18	32
8	3	0	46		11	0		22	51		3	33		13	53		1	28	11	28	58		19	32
12		1	38		11	55		23	46		4	26		14	50		2	40	0	0	14		20	31
16		2	31		12	51		24	42		5	19		15	46		3	53		1	30		21	30
20		3	24		13	46		25	37		6	11		16	43		5	5		2	45		22	28
24		4	17		14	41		26	33		7	4		17	41		6	19		3	59		23	26
28		5	10		15	36		27	28		7	57		18	38		7	32		5	14		24	24
32	3	6	3	4	16	32	5	28	24	7	8	50	8	19	36	10	8	46	0	6	28	1	25	22
36		6	56		17	27	5	29	19		9	43		20	34		10	1		7	41		26	19
40		7	49		18	23	6	0	14		10	36		21	32		11	16		8	55		27	17
44		8	42		19	18		1	9		11	29		22	30		12	31		10	8		28	14
48		9	35		20	14		2	5		12	22		23	29		13	46		11	20	1	29	10
52		10	27		21	9		3	0		13	14		24	28		15	2		12	32	2	0	7
56		11	20		22	5		3	55		14	7		25	28		16	18		13	44		1	3

	2h			5h			8h			11h			14h			17h			20h			23h		
0	3	12	13	4	23	0	6	4	50	7	15	0	8	26	27	10	17	34	0	14	55	2	1	59
4		13	6		23	56		5	44		15	53		27	27		18	50		16	6		2	55
8		14	0		24	52		6	39		16	46		28	28		20	7		17	17		3	51
12		14	53		25	48		7	34		17	39	8	29	28		21	24		18	27		4	47
16		15	46		26	44		8	29		18	32	9	0	29		22	41		19	37		5	42
20		16	39		27	40		9	23		19	25		1	30		23	59		20	46		6	37
24		17	33		28	36		10	18		20	18		2	32		25	16		21	55		7	32
28		18	26	4	29	32		11	12		21	11		3	34		26	34		23	4		8	27
32	3	19	19	5	0	28	6	12	7	7	22	4	9	4	36	10	27	52	0	24	12	2	9	22
36		20	13		1	24		13	1		22	58		5	39	10	29	10		25	20		10	16
40		21	6		2	20		13	55		23	51		6	42	11	0	28		26	27		11	11
44		22	0		3	16		14	49		24	44		7	45		1	46		27	34		12	5
48		22	53		4	12		15	43		25	38		8	49		3	5		28	40		12	59
52		23	47		5	8		16	37		26	32		9	53		4	23	0	29	46		13	53
56		24	41		6	4		17	31		27	25		10	58		5	42	1	0	52		14	47
60	3	25	35	5	7	0	6	18	25	7	28	19	9	12	3	11	7	0	1	1	57	2	15	41

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–6′	1°–8′	1°–10′	1°–11′	1°–13′	1°–14′	1°–16′	1°–18′
Variation in 3 mins.	49′	51′	52′	53′	55′	55′	57′	58′
„ „ 2 mins.	33	34	35	36	37	37	38	39
„ „ 1 min.	17	17	18	18	18	19	19	20

Ascendant for Latitude 21° 30′ North

(For Balasore 21°N30′, Sambalpur 21°N28′, Broach 21°N41′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 15 54	3 25 43	5 7 0	6 18 17	7 28 6	9 11 50	11 7 0	1 2 10
4	16 48	26 37	7 56	19 11	29 0	12 55	8 18	3 15
8	17 42	27 31	8 52	20 4	7 29 53	14 1	9 37	4 20
12	18 35	28 25	9 47	20 58	8 0 46	15 7	10 56	5 24
16	19 29	3 29 19	10 43	21 51	1 41	16 13	12 15	6 28
20	20 22	4 0 12	11 39	22 45	2 35	17 20	13 34	7 32
24	21 15	1 6	12 35	23 38	3 30	18 28	14 52	8 35
28	22 9	2 0	13 31	24 31	4 24	19 36	16 11	9 38
32	2 23 2	4 2 55	5 14 26	6 25 24	8 5 19	9 20 44	11 17 29	1 10 40
36	23 54	3 49	15 22	26 18	6 14	21 53	18 47	11 42
40	24 47	4 44	16 18	27 11	7 9	23 2	20 5	12 44
44	25 40	5 38	17 14	28 4	8 4	24 11	21 23	13 45
48	26 33	6 32	18 10	28 57	8 59	25 22	22 41	14 46
52	27 26	7 27	19 5	6 29 50	9 55	26 32	23 58	15 46
56	28 19	8 22	20 1	7 0 43	10 51	27 43	25 15	16 47

	1h	4h	7h	10h	13h	16h	19h	22h
0	2 29 12	4 9 16	5 20 56	7 1 36	8 11 47	9 28 54	11 26 32	1 17 47
4	3 0 5	10 11	21 52	2 29	12 43	10 0 6	27 48	18 46
8	0 58	11 6	22 47	3 22	13 39	1 18	11 29 5	19 46
12	1 50	12 1	23 43	4 15	14 36	2 30	0 0 21	20 45
16	2 43	12 56	24 38	5 8	15 32	3 43	1 37	21 44
20	3 36	13 51	25 33	6 0	16 29	4 56	2 52	22 42
24	4 29	14 46	26 29	6 53	17 27	6 10	4 7	23 40
28	5 22	15 41	27 24	7 46	18 24	7 23	5 22	24 38
32	3 6 15	4 16 36	5 28 19	7 8 33	8 19 22	10 8 38	0 6 36	1 25 36
36	7 7	17 31	5 29 14	9 31	20 20	9 53	7 50	26 33
40	8 0	18 27	6 0 9	10 24	21 18	11 8	9 4	27 31
44	8 53	19 22	1 4	11 17	22 16	12 23	10 17	28 28
48	9 46	20 18	1 59	12 10	23 15	13 39	11 30	1 29 24
52	10 38	21 12	2 54	13 2	24 14	14 55	12 42	2 0 21
56	11 31	22 8	3 49	13 55	25 14	16 11	13 54	1 17

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 12 24	4 23 4	6 4 44	7 14 48	8 26 13	10 17 27	0 15 6	2 2 13
4	13 17	23 59	5 38	15 41	27 13	18 44	16 17	3 9
8	14 10	24 55	6 33	16 34	28 14	20 2	17 28	4 5
12	15 3	25 50	7 28	17 27	8 29 14	21 19	18 38	5 1
16	15 56	26 46	8 22	18 19	9 0 15	22 36	19 48	5 56
20	16 49	27 42	9 16	19 12	1 16	23 55	20 58	6 51
24	17 42	28 38	10 11	20 5	2 18	25 12	22 7	7 46
28	18 35	4 29 33	11 5	20 58	3 20	26 31	23 16	8 41
32	3 19 28	5 0 29	6 12 0	7 21 51	9 4 22	10 27 49	0 24 24	2 9 36
36	20 22	1 25	12 54	22 45	5 25	10 29 7	25 32	10 30
40	21 15	2 21	13 47	23 38	6 29	11 0 26	26 39	11 25
44	22 9	3 17	14 41	24 31	7 32	1 45	27 47	12 19
48	23 2	4 13	15 35	25 25	8 36	3 4	28 53	13 13
52	23 56	5 8	16 29	26 19	9 40	4 23	0 29 59	14 7
56	24 50	6 4	17 23	27 12	10 45	5 42	1 1 5	15 1
60	3 25 43	5 7 0	6 18 17	7 28 6	9 11 50	11 7 0	1 2 10	2 15 54

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–53′	0°–55′	0°–56′	0°–58′	1°–0′	1°–1′	1°–3′	1°–5′
Variation in 3 mins.	40′	41′	42′	43′	45′	46′	47′	49′
" " 2 mins.	27	28	28	29	30	31	32	33
" " 1 min.	13	14	14	15	15	15	16	16

Ascendant for Latitude 22° 0′ North

(For Mandalay 21° N 59′, Bilaspur 22° N 5′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 16 8	3 25 52	5 7 0	6 18 8	7 27 52	9 11 36	11 7 0	1 2 24
4	17 2	26 45	7 56	19 2	28 46	12 42	8 19	3 29
8	17 55	27 39	8 51	19 55	7 29 40	13 48	9 39	4 33
12	18 49	28 33	9 47	20 49	8 0 33	14 54	10 58	5 38
16	19 42	3 29 26	10 43	21 42	1 27	16 1	12 17	6 42
20	20 35	4 0 20	11 38	22 35	2 22	17 8	13 36	7 45
24	21 28	1 14	12 34	23 28	3 16	18 16	14 55	8 48
28	22 21	2 8	13 29	24 22	4 10	19 24	16 14	9 51
32	2 23 14	4 3 2	5 14 25	6 25 15	8 5 5	9 20 32	11 17 33	1 10 54
36	24 7	3 56	15 21	26 8	6 0	21 41	18 51	11 56
40	25 0	4 50	16 16	27 1	6 55	22 51	20 10	12 58
44	25 53	5 45	17 12	27 54	7 50	24 0	21 28	13 59
48	26 46	6 39	18 7	28 47	8 45	25 11	22 46	15 0
52	27 39	7 33	19 2	6 29 40	9 41	26 21	24 3	16 1
56	28 32	8 28	19 58	7 0 33	10 36	27 32	25 21	17 1
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 29 24	4 9 22	5 20 53	7 1 25	8 11 32	9 28 44	11 26 38	1 18 1
4	3 0 17	10 17	21 48	2 18	12 28	9 29 56	27 55	19 1
8	1 10	11 12	22 44	3 11	13 25	10 1 8	11 29 12	20 0
12	2 2	12 6	23 39	4 4	14 21	2 21	0 0 28	20 59
16	2 55	13 1	24 34	4 56	15 18	3 34	1 44	21 58
20	3 48	13 56	25 29	5 49	16 15	4 47	3 0	22 57
24	4 40	14 51	26 24	6 42	17 12	6 1	4 15	23 55
28	5 33	15 46	27 19	7 34	18 10	7 15	5 30	24 53
32	3 6 26	4 16 41	5 28 14	7 8 27	8 19 7	10 8 30	0 6 45	1 25 50
36	7 18	17 36	5 29 9	9 20	20 5	9 45	7 59	26 48
40	8 11	18 31	6 0 4	10 12	21 3	11 0	9 13	27 45
44	9 4	19 26	0 59	11 5	22 2	12 16	10 26	28 42
48	9 56	20 21	1 54	11 58	23 1	13 32	11 40	1 29 39
52	10 49	21 16	2 48	12 50	24 0	14 48	12 52	2 0 35
56	11 42	22 12	3 43	13 43	24 59	16 5	14 5	1 32
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 12 35	4 23 7	6 4 38	7 14 36	8 25 59	10 17 22	0 15 16	2 2 28
4	13 27	24 2	5 32	15 28	26 59	18 39	16 28	3 24
8	14 20	24 58	6 27	16 21	27 59	19 57	17 39	4 19
12	15 13	25 53	7 21	17 14	8 29 0	21 14	18 49	5 15
16	16 6	26 48	8 15	18 7	9 0 1	22 32	20 0	6 10
20	16 59	27 44	9 10	19 0	1 2	23 50	21 9	7 5
24	17 52	28 39	10 4	19 53	2 4	25 9	22 19	8 0
28	18 45	4 29 35	10 58	20 46	3 6	26 27	23 28	8 55
32	3 19 35	5 0 31	6 11 52	7 21 39	9 4 9	10 27 46	0 24 36	2 9 50
36	20 32	1 26	12 46	22 32	5 12	10 29 5	25 44	10 44
40	21 25	2 22	13 40	23 25	6 15	11 0 24	26 52	11 38
44	22 18	3 17	14 34	24 18	7 18	1 43	27 59	12 33
48	23 11	4 13	15 27	25 11	8 22	3 2	0 29 6	13 27
52	24 5	5 9	16 21	26 5	9 27	4 21	1 0 12	14 20
56	24 58	6 4	17 15	26 58	10 31	5 41	1 18	15 14
60	3 25 52	5 7 0	6 18 8	7 27 52	9 11 36	11 7 0	1 2 24	2 16 8

PROPORTIONAL PARTS

Variation in 4 mins :	1° – 6′	1° – 8′	1° – 9′	1° – 11′	1° – 13′	1° – 15′	1° – 17′	1° – 19′
Variation in 3 mins.	49′	51′	52′	53′	55′	56′	58′	59′
,, ,, 2 mins.	33	34	35	36	37	38	39	40
,, ,, 1 min.	17	17	17	18	18	19	19	20

Ascendant for CALCUTTA-Latitude 22° 35′ North

(Also for Kharagpur 22°N30′, Indore 22°N43′ Jamnagar 22°N27′ etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 16 24	3 26 2	5 7 0	6 17 58	7 27 36	9 11 20	11 7 0	1 2 40
4	17 18	26 55	7 55	18 52	28 30	12 26	8 20	3 45
8	18 11	27 48	8 50	19 45	7 29 24	13 32	9 40	4 49
12	19 4	28 42	9 46	20 39	8 0 17	14 39	10 59	5 54
16	19 58	3 29 35	10 42	21 32	1 11	15 46	12 19	6 58
20	20 51	4 0 29	11 37	22 25	2 6	16 53	13 38	8 1
24	21 44	1 23	12 32	23 18	3 0	18 1	14 58	9 5
28	22 37	2 17	13 28	24 11	3 54	19 9	16 17	10 8
32	2 23 29	4 3 11	5 14 23	6 25 3	8 4 49	9 20 18	11 17 36	1 11 10
36	24 22	4 4	15 19	25 56	5 44	21 27	18 56	12 12
40	25 15	4 58	16 14	26 49	6 38	22 37	20 15	13 14
44	26 8	5 53	17 9	27 42	7 33	23 47	21 33	14 16
48	27 1	6 47	18 4	28 35	8 29	24 58	22 52	15 17
52	27 54	7 41	18 59	6 29 28	9 24	26 8	24 9	16 17
56	28 46	8 35	19 55	7 0 21	10 20	27 19	25 27	17 18
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 29 39	4 9 29	5 20 50	7 1 13	8 11 15	9 28 31	11 26 45	1 18 18
4	3 0 32	10 23	21 45	2 6	12 11	9 29 43	28 3	19 18
8	1 24	11 18	22 40	2 58	13 8	10 0 56	11 29 20	20 17
12	2 16	12 12	23 35	3 51	14 4	2 8	0 0 37	21 16
16	3 9	13 7	24 29	4 43	15 1	3 22	1 53	22 15
20	4 2	14 2	25 24	5 36	15 58	4 36	3 9	23 14
24	4 54	14 56	26 19	6 29	16 55	5 51	4 25	24 12
28	5 46	15 51	27 14	7 21	17 53	7 5	5 40	25 10
32	3 6 39	4 16 46	5 28 9	7 8 14	8 18 50	10 8 20	0 6 55	1 26 7
36	7 31	17 41	29 4	9 6	19 48	9 35	8 9	27 5
40	8 24	18 36	5 29 58	9 59	20 46	10 51	9 24	28 2
44	9 17	19 31	6 0 53	10 51	21 45	12 7	10 38	28 59
48	10 9	20 25	1 48	11 44	22 44	13 23	11 52	1 29 56
52	11 2	21 20	2 42	12 36	23 43	14 40	13 4	2 0 52
56	11 54	22 15	3 37	13 28	24 42	15 57	14 17	1 49
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 12 47	4 23 10	6 4 31	7 14 21	8 25 42	10 17 15	0 15 29	2 2 45
4	13 39	24 5	5 25	15 14	26 42	18 33	16 41	3 40
8	14 32	25 1	6 19	16 6	27 43	19 51	17 52	4 36
12	15 25	25 56	7 13	16 59	28 43	21 8	19 2	5 31
16	16 18	26 51	8 7	17 52	8 29 44	22 27	20 13	6 27
20	17 11	27 46	9 2	18 45	9 0 45	23 45	21 23	7 22
24	18 04	28 41	9 56	19 38	1 47	15 4	22 33	8 16
28	18 57	4 29 37	10 49	20 31	2 50	26 24	23 42	9 11
32	3 19 49	5 0 32	6 11 43	7 21 23	9 3 52	10 27 43	0 24 51	2 10 6
36	20 42	1 28	12 37	22 16	4 55	10 29 2	25 59	11 0
40	21 35	2 23	13 31	23 9	5 59	11 0 22	27 7	11 54
44	22 28	3 18	14 25	24 2	7 2	1 41	28 14	12 48
48	23 21	4 14	15 18	24 56	8 6	3 1	0 29 21	13 42
52	24 15	5 10	16 12	25 49	9 11	4 20	1 0 28	14 36
56	25 8	6 5	17 6	26 42	10 15	5 40	1 34	15 30
60	3 26 2	5 7 0	6 17 58	7 27 36	9 11 20	11 7 0	1 2 40	2 16 24

PROPORTIONAL PARTS

Variation in 4 mins.	0°–53′	0°–55′	0°–57′	0°–59′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins.	40′	41′	43′	44′	45′	46′	48′	49′
" " 2 mins.	27	28	29	30	30	31	32	33
" " 1 min.	13	14	14	15	15	16	16	17

Ascendant for Latitude 23° 0′ North

(For Ahmedabad 23°N2′, Jabalpur 23°N9′, Ujjain 23°N11′ etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 16 35	3 26 9	5 7 0	6 17 51	7 27 25	9 11 9	11 7 0	1 2 51
4	17 29	27 2	7 55	18 44	28 18	12 15	8 20	3 56
8	18 22	27 55	8 50	19 38	7 29 12	13 21	9 40	5 1
12	19 15	28 49	9 46	20 31	8 0 6	14 28	11 0	6 5
16	20 9	3 29 42	10 41	21 24	1 0	15 35	12 20	7 10
20	21 2	4 0 36	11 36	22 17	1 54	16 43	13 40	8 13
24	21 55	1 29	12 31	23 10	2 48	17 51	15 0	9 17
28	22 48	2 23	13 27	24 3	3 42	18 59	16 20	10 20
32	2 23 40	4 3 17	5 14 22	6 21 55	8 4 37	9 20 8	11 17 39	1 11 22
36	24 33	4 10	15 17	25 48	5 32	21 17	18 59	12 24
40	25 26	5 4	16 12	26 41	6 26	22 27	20 18	13 26
44	26 19	5 58	17 7	27 34	7 21	23 37	21 37	14 23
48	27 11	6 52	18 2	28 26	8 17	24 48	22 56	15 29
52	28 4	7 46	18 57	6 29 19	9 12	25 59	24 14	16 29
56	28 56	8 40	19 52	7 0 12	10 8	27 10	25 32	17 30
	1h	4h	7h	10h	13h	16h	19h	22h
0	2 29 49	4 9 34	5 20 47	7 1 4	8 11 3	9 28 22	11 26 50	1 18 30
4	3 0 42	10 28	21 42	1 57	11 59	9 29 34	28 8	19 30
8	1 34	11 23	22 37	2 49	12 56	10 0 47	11 29 26	20 29
12	2 26	12 17	23 32	3 42	13 52	2 0	0 0 43	21 28
16	3 19	13 11	24 26	4 34	14 49	3 14	1 59	22 27
20	4 11	14 6	25 21	5 27	15 46	4 28	3 16	23 26
24	5 4	15 0	26 16	6 19	16 43	5 43	4 32	24 24
28	5 56	15 55	27 11	7 11	17 40	6 57	5 47	25 22
32	3 6 49	4 16 49	5 28 5	7 8 4	8 18 38	10 8 13	0 7 2	1 26 20
36	7 41	17 44	29 0	8 56	19 36	9 28	8 17	27 17
40	8 33	18 39	5 29 54	9 49	20 34	10 44	9 32	28 14
44	9 26	19 31	6 0 49	10 41	21 33	12 1	10 46	1 29 11
48	10 18	20 28	1 43	11 34	22 32	13 17	12 0	2 0 8
52	11 11	21 23	2 37	12 26	23 31	14 34	13 13	1 4
56	12 3	22 18	3 32	13 18	24 30	15 52	14 26	2 1
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 12 56	4 23 13	6 4 26	7 14 11	8 25 30	10 17 10	0 15 38	2 2 57
4	13 48	24 8	5 20	15 4	26 30	18 28	16 50	3 52
8	14 41	25 3	6 14	15 56	27 31	19 46	18 1	4 48
12	15 34	25 58	7 8	16 49	28 31	21 4	19 12	5 43
16	16 26	26 53	8 2	17 41	8 29 32	22 23	20 23	6 39
20	17 19	27 48	8 56	18 34	9 0 33	23 42	21 33	7 34
24	18 12	28 43	9 50	19 27	1 35	25 1	22 43	8 28
28	19 5	4 29 38	10 43	20 20	2 38	26 21	23 52	9 23
32	3 19 57	5 0 33	6 11 37	7 21 12	9 3 40	10 27 40	0 25 1	2 10 18
36	20 50	1 29	12 31	22 5	4 43	10 29 0	26 9	11 12
40	21 43	2 24	13 24	22 58	5 47	11 0 20	27 17	12 6
44	22 36	3 19	14 18	23 51	6 51	1 40	28 25	13 0
48	23 29	4 14	15 11	24 45	7 55	3 0	0 29 32	13 54
52	24 22	5 10	16 5	25 38	8 59	4 20	1 0 39	14 48
56	25 16	6 5	16 58	26 31	10 4	5 40	1 45	15 42
60	3 26 9	5 7 0	6 17 51	7 27 25	9 11 9	11 7 0	1 2 51	2 16 35

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–7′	1°–9′	1°–10′	1°–12′	1°–14′	1°–16′	1°–18′	1°–20′
Variation in 3 mins.	50′	52′	52′	54′	55′	57′	58′	60′
„ „ 2 mins.	34	35	35	36	37	38	39	40′
„ „ 1 min.	17	17	18	18	19	19	20	20

Ascendant for DACCA Latitude 23° 42′ North

(Also for Agartala 23° N 49′ Asansol 23° N 42′, Sagar 23° N 50′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 16 55	3 26 21	5 7 0	6 17 39	7 27 5	9 10 50	11 7 0	1 3 10
4	17 48	27 14	7 55	18 32	27 59	11 56	8 20	4 16
8	18 41	28 7	8 50	19 25	28 52	13 2	9 41	5 21
12	19 34	29 0	9 45	20 18	7 29 46	14 9	11 2	6 25
16	20 28	3 29 53	10 40	21 11	8 0 40	15 17	12 23	7 30
20	21 20	4 0 47	11 35	22 4	1 34	16 25	13 44	8 33
24	22 13	1 40	12 30	22 57	2 28	17 33	15 4	9 37
28	23 6	2 34	13 25	23 49	3 22	18 41	16 24	10 40
32	2 23 59	4 3 27	5 14 15	6 24 42	8 4 17	9 19 50	11 17 44	1 11 42
36	24 51	4 20	15 14	25 34	5 12	20 59	19 5	12 44
40	25 44	5 14	16 9	26 27	6 6	22 9	20 24	13 47
44	26 37	6 7	17 3	27 19	7 1	23 20	21 44	14 48
48	27 29	7 1	17 58	28 12	7 57	24 31	23 3	15 49
52	28 22	7 55	18 53	29 4	8 52	25 42	24 22	16 50
56	2 29 14	8 48	19 48	6 29 57	9 47	26 54	25 40	17 50

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 0 7	4 9 42	5 20 43	7 0 49	8 10 43	9 28 7	11 26 59	1 18 50
4	0 59	10 36	21 37	1 42	11 39	9 29 19	28 18	19 50
8	1 51	11 31	22 32	2 34	12 35	10 0 32	11 29 36	20 50
12	2 44	12 25	23 26	3 26	13 32	1 46	0 0 53	21 49
16	3 36	13 19	24 21	4 19	14 28	3 0	2 10	22 48
20	4 28	14 13	25 15	5 11	15 25	4 15	3 27	23 46
24	5 20	15 7	26 10	6 3	16 23	5 30	4 44	24 45
28	6 13	16 1	27 5	6 55	17 20	6 44	6 0	25 43
32	3 7 5	4 16 55	5 27 59	7 7 47	8 18 17	10 8 0	0 7 16	1 26 40
36	7 57	17 50	28 53	8 40	19 15	9 16	8 30	27 38
40	8 49	18 45	5 29 47	9 32	20 14	10 33	9 46	28 35
44	9 41	19 39	6 0 41	10 24	21 12	11 50	11 0	1 29 32
48	10 34	20 34	1 35	11 16	22 11	13 6	12 14	2 0 28
52	11 26	21 28	2 29	12 8	23 10	14 24	13 28	1 25
56	12 18	22 23	3 24	13 0	24 10	15 42	14 41	2 21

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 13 11	4 23 17	6 4 18	7 13 53	8 25 10	10 17 1	0 15 53	2 3 17
4	14 3	24 12	5 12	14 46	26 10	18 20	17 6	4 13
8	14 56	25 7	6 5	15 38	27 10	19 38	18 18	5 8
12	15 48	26 2	6 59	16 31	28 11	20 57	19 29	6 3
16	16 41	26 57	7 53	17 23	8 29 12	22 16	20 40	6 59
20	17 33	27 51	8 46	18 16	9 0 13	23 36	21 51	7 54
24	18 26	28 46	9 40	19 9	1 16	24 55	23 1	8 48
28	19 18	4 29 41	10 33	20 1	2 18	26 16	24 10	9 43
32	3 20 11	5 0 35	6 11 26	7 20 54	9 3 20	10 27 36	0 25 19	2 10 38
36	21 3	1 30	12 20	21 47	4 23	10 28 56	26 27	11 32
40	21 56	2 25	13 13	22 40	5 27	11 0 16	27 36	12 26
44	22 49	3 20	14 7	23 33	6 30	1 37	28 43	13 20
48	23 42	4 15	15 0	24 26	7 35	2 58	0 29 51	14 14
52	24 35	5 10	15 53	25 19	8 39	4 19	1 0 53	15 8
56	25 28	6 5	16 46	26 12	9 44	5 40	1 2 4	16 1
60	3 26 21	5 7 0	6 17 39	7 27 5	9 10 50	11 7 0	1 3 10	2 16 55

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–52′	0°–54′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins.	39′	40′	42′	43′	45′	46′	48′	49′
„ „ 2 mins.	26	27	28	29	30	31	32	33
„ „ 1 min.	13	14	14	15	15	16	16	17

Ascendant for Latitude 24° 0′ North

(For all places in or near 24° N latitude)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 17 3	3 26 26	5 7 0	6 17 34	7 26 57	9 10 42	11 7 0	1 3 18
4	17 56	27 19	7 55	18 27	27 51	11 48	8 21	4 24
8	18 49	28 12	8 50	19 20	28 44	12 54	9 42	5 29
12	19 42	29 5	9 44	20 13	7 29 38	14 1	11 3	6 34
16	20 35	3 29 58	10 39	21 5	8 0 32	15 9	12 24	7 38
20	21 28	4 0 51	11 34	21 58	1 26	16 16	13 45	8 42
24	22 21	1 44	12 29	22 51	2 20	17 25	15 6	9 45
28	23 14	2 38	13 24	23 43	3 14	18 33	16 26	10 48
32	2 24 7	4 3 31	5 14 18	6 24 36	8 4 8	9 19 43	11 17 46	1 11 51
36	24 59	4 24	15 13	25 28	5 3	20 52	19 7	12 53
40	25 52	5 18	16 8	26 21	5 58	22 2	20 27	13 55
44	26 44	6 11	17 2	27 13	6 53	23 13	21 47	14 57
48	27 37	7 5	17 57	28 6	7 48	24 24	23 6	15 58
52	28 29	7 59	18 52	28 58	8 43	25 35	24 26	16 59
56	2 29 22	8 52	19 46	6 29 50	9 38	26 47	25 44	17 59

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 0 14	4 9 46	5 20 41	7 0 43	8 10 34	9 28 0	11 27 3	1 18 59
4	1 6	10 40	21 35	1 35	11 30	9 29 12	28 22	19 59
8	1 58	11 34	22 30	2 27	12 26	10 0 26	11 29 40	20 59
12	2 51	12 28	23 24	3 19	13 23	1 40	0 0 58	21 58
16	3 43	13 22	24 19	4 12	14 19	2 54	2 15	22 57
20	4 35	14 16	25 13	5 4	15 16	4 8	3 32	23 55
24	5 27	15 10	26 7	5 56	16 13	5 24	4 49	24 54
28	6 20	16 4	27 2	6 48	17 11	6 39	6 5	25 52
32	3 7 12	4 16 58	5 27 56	7 7 40	8 18 8	10 7 55	0 7 21	1 26 49
36	8 4	17 53	28 50	8 33	19 6	9 11	8 36	27 47
40	8 56	18 47	5 29 44	9 25	20 5	10 28	9 52	28 44
44	9 48	19 41	6 0 38	10 17	21 3	11 45	11 6	1 29 41
48	10 41	20 36	1 32	11 9	22 2	13 2	12 20	2 0 37
52	11 33	21 30	2 26	12 2	23 1	14 20	13 34	1 34
56	12 25	22 25	3 20	12 54	24 1	15 38	14 47	2 30

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 13 17	4 23 19	6 4 14	7 13 46	8 25 1	10 16 57	0 16 0	2 3 26
4	14 10	24 14	5 8	14 38	26 1	18 16	17 13	4 22
8	15 2	25 8	6 1	15 31	27 1	19 34	18 25	5 17
12	15 54	26 3	6 55	16 23	28 2	20 54	19 36	6 12
16	16 47	26 58	7 49	17 16	8 29 3	22 13	20 47	7 7
20	17 39	27 52	8 42	18 8	9 0 5	23 33	21 58	8 2
24	18 32	28 47	9 36	19 1	1 7	24 53	23 8	8 57
28	19 24	4 29 42	10 29	19 53	2 9	26 14	24 17	9 52
32	3 20 17	5 0 36	6 11 22	7 20 46	9 3 12	10 27 34	0 25 27	2 10 46
36	21 9	1 31	12 16	21 39	4 15	10 28 54	26 35	11 40
40	22 2	2 26	13 9	22 32	5 18	11 0 15	27 44	12 34
44	22 55	3 21	14 2	23 25	6 22	1 36	28 51	13 28
48	23 47	4 16	14 55	24 18	7 26	2 57	0 29 59	14 22
52	24 40	5 10	15 48	25 11	8 31	4 18	1 1 6	15 16
56	25 33	6 5	16 41	26 4	9 36	5 39	2 12	16 9
60	3 26 26	5 7 0	6 17 34	7 26 57	9 10 42	11 7 0	1 3 18	2 17 3

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–7′	1°–9′	1°–11′	1°–13′	1°–15′	1°–17′	1°–19′	1°–21′
Variation in 3 mins.	50′	52′	53′	55′	56′	58′	59′	61′
" " 2 mins.	34	35	36	37	38	39	40	41
" " 1 min.	17	17	18	18	19	19	20	20

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Ascendant for Latitude 24° 30′ North

(For Rajshahi 24°N22′, Rewa 24°N31′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 17 17	3 26 34	5 7 0	6 17 26	7 26 43	9 10 28	11 7 0	1 3 32
4	18 10	27 27	7 54	18 18	27 37	11 34	8 21	4 38
8	19 3	28 20	8 49	19 11	28 30	12 40	9 43	5 43
12	19 56	3 29 13	9 44	20 4	7 29 24	13 47	11 4	6 49
16	20 49	4 0 6	10 39	20 56	8 0 18	14 55	12 26	7 53
20	21 42	0 59	11 33	21 48	1 12	16 4	13 47	8 56
24	22 34	1 52	12 28	22 41	2 6	17 12	15 8	10 0
28	23 28	2 46	13 22	23 34	3 0	18 20	16 29	11 3
32	2 24 20	4 3 38	5 14 17	6 24 26	8 3 54	9 19 29	11 17 50	1 12 6
36	25 12	4 31	15 11	25 18	4 48	20 39	19 11	13 8
40	26 5	5 25	16 6	26 11	5 43	21 49	20 32	14 10
44	26 57	6 18	17 0	27 3	6 38	23 0	21 52	15 12
48	27 50	7 12	17 54	27 56	7 33	24 12	23 11	16 13
52	28 42	8 6	18 49	28 48	8 28	25 23	24 31	17 14
56	2 29 35	8 58	19 43	6 29 41	9 23	26 35	25 50	18 14
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 0 26	4 9 52	5 20 38	7 0 32	8 10 19	9 47 48	11 27 10	1 19 14
4	1 19	10 46	21 32	1 24	11 15	9 29 1	28 29	20 14
8	2 11	11 40	22 26	2 16	12 11	10 0 15	11 29 47	21 14
12	3 3	12 34	23 20	3 8	13 8	1 29	0 1 5	22 13
16	3 55	13 27	24 15	4 1	14 4	2 43	2 23	23 12
20	4 47	14 21	25 9	4 52	15 1	3 58	3 40	24 10
24	5 39	15 15	26 3	5 44	15 58	5 14	4 58	25 9
28	6 32	16 9	26 58	6 36	16 56	6 29	6 14	26 7
32	3 7 25	4 17 3	5 27 51	7 7 28	8 17 53	10 7 46	0 7 30	1 27 4
36	8 16	17 57	28 45	8 21	18 51	9 3	8 46	28 2
40	9 7	18 51	5 29 39	9 13	19 49	10 19	10 2	28 59
44	9 59	19 45	6 0 33	10 5	20 48	11 37	11 16	1 29 56
48	10 52	20 40	1 27	10 57	21 47	12 54	12 31	2 0 52
52	11 44	21 34	2 20	11 50	22 46	14 13	13 45	1 49
56	12 36	22 28	3 14	12 41	23 46	15 31	14 59	2 2 45
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 13 28	4 23 22	6 4 8	7 13 33	8 24 46	10 16 50	0 16 12	2 3 41
4	14 20	24 17	5 2	14 25	25 46	18 10	17 25	4 36
8	15 12	25 11	5 54	15 18	26 46	19 29	18 37	5 32
12	16 5	26 6	6 48	16 10	27 47	20 49	19 48	6 27
16	16 57	27 0	7 42	17 3	28 48	22 8	21 0	7 22
20	17 49	27 54	8 35	17 55	8 29 50	23 28	22 11	8 17
24	18 42	28 49	9 29	18 48	9 0 52	24 49	23 21	9 12
28	19 34	4 29 44	10 22	19 40	1 54	26 10	24 30	10 7
32	3 20 26	5 0 38	6 11 15	7 20 33	9 2 57	10 27 31	0 25 40	2 11 1
36	21 18	1 32	12 8	21 25	4 0	10 28 51	26 48	11 55
40	22 11	2 27	13 1	22 18	5 3	11 0 13	27 57	12 49
44	23 4	3 22	13 51	23 11	6 7	1 34	0 29 5	13 43
48	23 56	4 17	14 47	24 4	7 11	2 55	1 0 12	14 37
52	24 49	5 11	15 40	24 57	8 16	4 17	1 19	15 30
56	25 42	6 6	16 33	25 50	9 22	5 39	2 26	16 24
60	3 26 34	5 7 0	6 17 26	7 26 43	9 10 28	11 7 0	1 3 32	2 17 17

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–52′	0°–54′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins :	39′	40′	42′	43′	45′	46′	48′	49′
,, ,, 2 mins :	26	27	28	29	30	31	32	33
,, , 1 min.	13	14	14	15	15	16	16	17

Ascendant for Latitude 25° 0′ North

(For Gaya 24°N48′, Silchar 24°N50′, Karachi 24°N51′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 17 31	3 26 43	5 7 0	6 17 17	7 26 29	9 10 13	11 7 0	1 3 47
4	18 24	27 36	7 54	18 10	27 22	11 20	8 22	4 52
8	19 17	28 28	8 49	19 2	28 16	12 27	9 44	5 58
12	20 10	3 29 21	9 43	19 55	7 29 9	13 34	11 6	7 3
16	21 3	4 0 14	10 38	20 47	8 0 3	14 41	12 28	8 7
20	21 55	1 7	11 32	21 39	0 57	15 49	13 50	9 11
24	22 48	2 0	12 26	22 32	1 51	16 58	15 11	10 15
28	23 41	2 53	13 21	23 24	2 45	18 7	16 32	11 18
32	2 24 33	4 3 46	5 14 15	6 24 16	8 3 39	9 19 16	11 17 54	1 12 21
36	25 26	4 39	15 9	25 9	4 34	20 26	19 15	13 23
40	26 18	5 32	16 4	26 1	5 28	21 37	20 36	14 25
44	27 10	6 25	16 58	26 53	6 23	22 48	21 57	15 27
48	28 3	7 18	17 52	27 45	7 18	23 59	23 17	16 28
52	28 55	8 12	18 46	28 37	8 13	25 11	24 37	17 29
56	2 29 47	9 5	19 40	6 29 29	9 9	26 24	25 57	18 30

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 0 39	4 9 58	5 20 35	7 0 21	8 10 4	9 27 37	11 27 17	1 19 30
4	1 31	10 52	21 29	1 13	11 0	9 28 50	28 36	20 30
8	2 23	11 45	22 23	2 5	11 56	10 0 4	11 29 55	21 29
12	3 15	12 39	23 17	2 57	12 53	1 18	0 1 13	22 28
16	4 7	13 32	24 11	3 49	13 49	2 33	2 31	23 27
20	4 59	14 26	25 5	4 41	14 46	3 48	3 49	24 26
24	5 51	15 20	25 59	5 33	15 43	5 4	5 7	25 24
28	6 43	16 14	26 53	6 25	16 41	6 20	6 23	26 22
32	3 7 35	4 17 7	5 27 46	7 7 17	8 17 38	10 7 37	0 7 40	1 27 19
36	8 27	18 1	28 40	8 9	18 36	8 54	8 56	28 17
40	9 19	18 55	5 29 34	9 1	19 34	10 11	10 12	1 29 14
44	10 11	19 49	6 0 28	9 53	20 33	11 29	11 27	2 0 11
48	11 3	20 43	1 21	10 45	21 32	12 47	12 42	1 7
52	11 55	21 37	2 15	11 37	22 31	14 5	13 56	2 4
56	12 47	22 31	3 8	12 29	23 30	15 24	15 10	3 0

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 13 39	4 23 25	6 4 2	7 13 21	8 24 30	10 16 43	0 16 23	2 3 56
4	14 31	24 20	4 55	14 13	25 30	18 3	17 36	4 51
8	15 23	25 14	5 48	15 5	26 31	19 23	18 49	5 47
12	16 15	26 8	6 42	15 57	27 32	20 43	20 1	6 42
16	17 7	27 2	7 35	16 50	28 33	22 3	21 12	7 37
20	17 59	27 56	8 28	17 42	8 29 35	23 24	22 23	8 32
24	18 51	28 51	9 21	18 34	9 0 37	24 45	23 34	9 26
28	19 44	4 29 45	10 14	19 27	1 39	26 6	24 44	10 21
32	3 20 36	5 0 39	6 11 7	7 20 19	9 2 42	10 27 28	0 25 53	2 11 15
36	21 28	1 34	12 0	21 12	3 45	10 28 49	27 2	12 9
40	22 21	2 28	12 53	22 5	4 49	11 0 11	28 11	13 3
44	23 13	3 22	13 46	22 57	5 53	1 32	0 29 19	13 57
48	24 5	4 17	14 39	23 50	6 57	2 54	1 0 26	14 51
52	24 58	5 11	15 32	24 43	8 2	4 16	1 33	15 44
56	25 50	6 6	16 24	25 36	9 8	5 38	2 40	16 38
60	3 26 43	5 7 0	6 17 17	7 26 29	9 10 13	11 7 0	1 3 47	2 17 31

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–8′	1°–10′	1°–12′	1°–14′	1°–16′	1°–18′	1°–20′	1°–22′
Variation in 3 mins.	51′	52′	54′	55′	57′	58′	60′	61′
" " 2 mins.	34	35	36	37	38	39	40	41
" " 1 min.	17	18	18	19	19	20	20	21

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Ascendant for Latitude 25° 23′ North

(For VARANASI 25°N19′, Hyderabad (Pak) 25°N22′, Allahabad 25°N23′ etc.

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 17 42	3 26 50	5 7 0	6 17 10	7 26 18	9 10 2	11 7 0	1 3 58
4	18 35	27 43	7 54	18 3	27 11	11 9	8 22	5 4
8	19 28	28 35	8 49	18 55	28 5	12 16	9 45	6 9
12	20 21	3 29 27	9 43	19 48	28 58	13 23	11 7	7 14
16	21 14	4 0 20	10 37	20 40	7 29 52	14 30	12 30	8 19
20	22 6	1 13	11 31	21 32	8 0 46	15 38	13 52	9 23
24	22 59	2 6	12 25	22 25	1 40	16 47	15 13	10 27
28	23 51	2 59	13 20	23 17	2 34	17 56	16 35	11 30
32	2 24 44	4 3 52	5 14 14	6 24 9	8 3 28	9 19 6	11 17 57	1 12 33
36	25 36	4 45	15 8	25 1	4 22	20 16	19 18	13 35
40	26 28	5 38	16 2	25 53	5 17	21 27	20 40	14 37
44	27 21	6 30	16 56	26 45	6 11	22 38	22 1	15 39
48	28 13	7 23	17 50	27 37	7 6	23 50	23 21	16 40
52	29 5	8 17	18 44	28 29	8 1	25 2	24 42	17 41
56	2 29 57	9 10	19 38	6 29 21	8 57	26 15	26 2	18 42

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 0 49	4 10 3	5 20 32	7 0 13	8 9 52	9 27 25	11 27 22	1 19 42
4	1 41	10 56	21 26	1 5	10 48	28 41	11 28 42	20 42
8	2 33	11 50	22 20	1 57	11 44	9 29 55	0 0 1	21 41
12	3 25	12 43	23 14	2 49	12 41	10 1 9	1 20	22 40
16	4 17	13 36	24 8	3 40	13 37	2 24	2 38	23 39
20	5 8	14 30	25 2	4 32	14 34	3 40	3 56	24 38
24	6 0	15 24	25 55	5 24	15 31	4 56	5 14	25 36
28	6 52	16 18	26 49	6 16	16 29	6 12	6 31	26 34
32	3 7 44	4 17 11	5 27 42	7 7 8	8 17 26	10 7 29	0 7 48	1 27 31
36	8 36	18 5	28 36	8 0	18 24	8 46	9 4	28 29
40	9 28	18 58	5 29 30	8 52	19 22	10 4	10 20	1 29 26
44	10 20	19 52	6 0 24	9 43	20 21	11 22	11 36	2 0 23
48	11 11	20 46	1 17	10 35	21 20	12 40	12 51	1 19
52	12 3	21 40	2 10	11 27	22 19	13 59	14 5	2 16
56	12 55	22 34	3 4	12 19	23 18	15 18	15 19	3 12

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 13 47	4 23 28	6 3 57	7 13 11	8 24 18	10 16 38	0 16 32	2 4 8
4	14 39	24 22	4 50	14 3	25 18	17 58	17 45	5 3
8	15 31	25 16	5 43	14 55	26 19	19 18	18 58	5 59
12	16 23	26 10	6 37	15 47	27 20	20 39	20 10	6 54
16	17 15	27 4	7 30	16 39	28 21	21 59	21 22	7 49
20	18 7	27 58	8 22	17 32	8 29 23	23 20	22 33	8 43
24	18 59	28 52	9 15	18 24	9 0 25	24 42	23 44	9 38
28	19 51	4 29 46	10 8	19 16	1 27	26 3	24 54	10 32
32	3 20 43	5 0 40	6 11 1	7 20 8	9 2 30	10 27 25	0 26 4	2 11 26
36	21 35	1 35	11 54	21 1	3 33	10 28 47	27 13	12 20
40	22 28	2 29	12 47	21 54	4 37	11 0 9	28 22	13 14
44	23 20	3 23	13 40	22 46	5 41	1 31	0 29 30	14 8
48	24 12	4 17	14 33	23 39	6 46	2 53	1 0 37	15 2
52	25 5	5 11	15 25	24 32	7 51	4 15	1 44	15 55
56	25 57	6 6	16 18	25 25	8 56	5 38	2 51	16 49
60	3 26 50	5 7 0	6 17 10	7 26 18	9 10 2	11 7 0	1 3 58	2 17 42

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–52′	0°–54′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins :	39′	40′	42′	43′	45′	46′	48′	49′
" " 2 mins :	26	27	28	29	30	31	32	33
" " 1 min.	13	14	14	15	15	16	16	17

Ascendant for Latitude 26° 0' North

(For Gauhati 26° N 10', Darbhanga 26° N 10', etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
0	2 17 59	3 27 0	5 7 0	6 17 0	7 26 1	9 9 44	11 7 0	1 4 16
4	18 52	27 52	7 54	17 52	26 54	10 51	8 23	5 22
8	19 45	28 45	8 48	18 44	27 47	11 58	9 46	6 27
12	20 38	3 29 37	9 42	19 36	28 41	13 5	11 9	7 32
16	21 30	4 0 30	10 36	20 29	7 29 34	14 13	12 32	8 37
20	22 23	1 22	11 30	21 21	8 0 28	15 21	13 54	9 41
24	23 15	2 15	12 24	22 13	1 22	16 30	15 17	10 45
28	24 8	3 7	13 18	23 5	2 16	17 40	16 39	11 48
32	2 25 0	4 4 0	5 14 12	6 23 57	8 3 10	9 18 50	11 18 1	1 12 51
36	25 52	4 53	15 6	24 49	4 4	20 0	19 23	13 54
40	26 44	5 46	15 59	25 40	4 59	21 11	20 45	14 56
44	27 37	6 38	16 53	26 32	5 53	22 22	22 7	15 58
48	28 29	7 31	17 47	27 24	6 48	23 34	23 28	16 59
52	2 29 21	8 24	18 41	28 16	7 43	24 47	24 49	18 0
56	3 0 13	9 17	19 35	29 8	8 39	26 0	26 10	19 0
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 1 4	4 10 10	5 20 28	6 29 59	8 9 34	9 27 13	11 27 30	1 20 1
4	1 56	11 3	21 22	7 0 51	10 30	28 27	11 28 50	21 0
8	2 48	11 57	22 16	1 43	11 26	9 29 41	0 0 10	22 0
12	3 40	12 50	23 9	2 35	12 22	10 0 56	1 30	22 59
16	4 32	13 43	24 3	3 26	13 19	2 11	2 48	23 58
20	5 23	14 36	24 57	4 18	14 15	3 27	4 7	24 56
24	6 15	15 30	25 50	5 10	15 13	4 43	5 25	25 55
28	7 7	16 23	26 44	6 1	16 10	6 0	6 43	26 53
32	3 7 59	4 17 16	5 27 37	7 6 53	8 17 7	10 7 17	0 8 0	1 27 50
36	8 50	18 10	28 30	7 45	18 5	8 35	9 17	28 47
40	9 42	19 3	5 29 24	8 37	19 4	9 53	10 33	1 29 44
44	10 34	19 57	6 0 17	9 28	20 2	11 12	11 49	2 0 41
48	11 25	20 51	1 10	10 20	21 1	12 30	13 4	1 37
52	12 17	21 44	2 3	11 12	22 0	13 50	14 19	2 34
56	13 9	22 38	2 57	12 4	23 0	15 10	15 33	3 30
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 1	4 23 32	6 3 50	7 12 56	8 23 59	10 16 30	0 16 47	2 4 26
4	14 52	24 25	4 43	13 48	25 0	17 50	18 0	5 21
8	15 44	25 19	5 36	14 39	26 0	19 11	19 13	6 17
12	16 36	26 13	6 29	15 31	27 1	20 32	20 26	7 12
16	17 28	27 7	7 22	16 23	28 2	21 53	21 38	8 7
20	18 20	28 1	8 14	17 16	8 29 4	23 15	22 49	9 1
24	19 11	28 54	9 7	18 8	9 0 6	24 37	24 0	9 56
28	20 3	4 29 48	10 0	19 0	1 9	25 59	25 10	10 50
32	3 20 55	5 0 42	6 10 53	7 19 52	9 2 12	10 27 21	0 26 20	2 11 44
36	21 47	1 36	11 45	20 45	3 15	10 28 43	27 30	12 38
40	22 39	2 30	12 38	21 37	4 19	11 0 6	28 39	13 32
44	23 31	3 24	13 30	22 30	5 23	1 28	0 29 47	14 26
48	24 24	4 18	14 23	23 22	6 28	2 51	1 0 55	15 19
52	25 16	5 12	15 15	24 15	7 33	4 14	2 2	16 13
56	26 8	6 6	16 8	25 8	8 38	5 37	3 9	17 6
60	3 27 0	5 7 0	6 17 0	7 26 1	9 9 44	11 7 0	1 4 16	2 17 59

PROPORTIONAL PARTS

Variation in 4 mins :	1°–8'	1°–10'	1°–12'	1°–14'	1°–16'	1°–18'	1°–20'	1°–23'
Variation in 3 mins.	51'	52'	54'	55'	57'	58'	1°–0'	1°–3'
" " 2 mins.	34	35	36	37	38	39	40	42
" 1 min.	17	18	18	19	19	20	20	21

Ascendant for Latitude 26° 30 North

(For Kanpur 26° N 29 Ajmer 26° N 37′, Tezpur 26° N 37′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 18 14	3 27 9	5 7 0	6 16 51	7 25 47	9 9 29	11 7 0	1 4 31
4	19 7	28 1	7 54	17 43	26 40	10 36	8 23	5 37
8	19 59	28 53	8 48	18 35	27 32	11 43	9 47	6 42
12	20 52	3 29 45	9 41	19 27	28 26	12 50	11 11	7 47
16	21 44	4 0 38	10 35	20 19	7 29 19	13 58	12 34	8 52
20	22 37	1 30	11 29	21 11	8 0 13	15 7	13 57	9 56
24	23 29	2 22	12 23	22 3	1 7	16 16	15 20	11 0
28	24 21	3 15	13 16	32 55	2 1	17 26	16 43	12 3
32	2 25 13	4 4 7	5 14 10	6 23 47	8 2 55	9 18 36	11 18 5	1 13 6
36	26 5	5 0	15 4	24 39	3 49	19 46	19 28	14 9
40	26 57	5 53	15 57	25 30	4 44	20 57	20 50	15 12
44	27 50	6 45	16 51	26 22	5 38	22 9	22 12	16 14
48	28 42	7 38	17 45	27 14	6 33	23 21	23 34	17 15
52	2 29 34	8 30	18 38	28 5	7 28	24 34	24 55	18 16
56	3 0 25	9 23	19 32	28 57	8 24	25 47	26 16	19 16
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 1 17	4 10 16	5 20 25	6 29 48	8 9 19	9 27 1	11 27 37	1 20 17
4	2 9	11 9	21 19	7 0 40	10 14	28 15	11 28 58	21 16
8	3 0	12 3	22 12	1 32	11 10	9 29 29	0 0 18	22 16
12	3 52	12 56	23 5	2 23	12 6	10 0 44	1 38	23 15
16	4 44	13 48	23 59	3 14	13 3	2 0	2 57	24 14
20	5 35	14 41	24 52	4 6	14 0	3 16	4 16	25 12
24	6 27	15 35	25 45	4 58	14 57	4 33	5 35	26 11
28	7 19	16 28	26 39	5 49	15 54	5 50	6 53	27 9
32	3 8 11	4 17 21	5 27 32	7 6 41	8 16 51	10 7 7	0 8 10	1 28 6
36	9 2	18 14	28 25	7 33	17 49	8 25	9 27	1 29 3
40	9 54	19 7	5 29 19	8 25	18 48	9 44	10 44	2 0 0
44	10 46	20 1	6 0 12	9 16	19 46	11 3	12 0	0 57
48	11 37	20 55	1 5	10 8	20 45	12 22	13 16	1 54
52	12 28	21 48	1 58	11 0	21 44	13 42	14 31	2 50
56	13 20	22 41	2 51	11 51	22 44	15 2	15 45	3 46
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 12	4 23 35	6 3 44	7 12 43	8 23 43	10 16 23	0 16 59	2 4 41
4	15 3	24 28	4 37	13 35	24 44	17 44	18 13	5 36
8	15 55	25 22	5 30	14 26	25 44	19 5	19 26	6 32
12	16 46	26 15	6 22	15 18	26 45	20 26	20 39	7 27
16	17 38	27 9	7 15	16 10	27 46	21 48	21 51	8 22
20	18 30	28 3	8 7	17 3	28 48	23 10	23 3	9 16
24	19 21	28 56	9 0	17 55	8 29 51	24 32	24 14	10 11
28	20 13	4 29 50	9 53	18 47	9 0 51	25 55	25 24	11 5
32	3 21 5	5 0 44	6 10 46	7 19 39	9 1 57	10 27 17	0 26 34	2 11 59
36	21 57	1 37	11 38	20 31	3 0	10 28 40	27 44	12 53
40	22 49	2 31	12 30	21 23	4 4	11 0 3	0 28 53	13 47
44	23 41	3 25	13 22	22 16	5 8	1 26	1 0 2	14 41
48	24 33	4 19	14 15	23 8	6 13	2 49	1 10	15 34
52	25 25	5 12	15 7	24 1	7 18	4 13	2 17	16 27
56	26 17	6 6	15 59	24 54	8 23	5 37	3 24	17 20
60	3 27 9	5 7 0	6 16 51	7 25 47	9 9 29	11 7 0	1 4 31	2 18 14

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–51′	0°–53′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins.	38′	40′	42′	43′	45′	46′	48′	49′
" " 2 mins.	26	27	28	29	30	31	32	33
" " 1 min.	13	13	14	15	15	16	16	17

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Ascendant for Latitude 27° 0′ North

(For Lucknow 26°N51′, Jaipur 26°N55′, Darjeeling 27°N3′ Agra 27°N11′ etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 18 28	3 27 18	5 7 0	6 16 42	7 25 32	9 9 14	11 7 0	1 4 46
4	19 21	28 10	7 54	17 34	26 25	10 21	8 24	5 52
8	20 13	29 2	8 47	18 26	27 18	11 28	9 48	6 58
12	21 6	3 29 54	9 41	19 18	28 11	12 36	11 12	8 3
16	21 58	4 0 46	10 34	20 10	29 5	13 44	12 36	9 8
20	22 51	1 38	11 28	21 2	7 29 58	14 53	13 59	10 12
24	23 43	2 30	12 21	21 53	8 0 52	16 2	15 23	11 16
28	24 35	3 22	13 15	22 45	1 46	17 12	16 46	12 19
32	2 25 27	4 4 15	5 14 8	6 23 37	8 2 40	9 18 22	11 18 9	1 13 22
36	26 19	5 7	15 2	24 28	3 34	19 33	19 32	14 25
40	27 11	5 59	15 55	25 20	4 28	20 44	20 55	15 27
44	28 3	6 52	16 49	26 12	5 23	21 56	22 18	16 29
48	28 55	7 44	17 42	27 3	6 18	23 8	23 40	17 30
52	2 29 47	8 37	18 36	27 55	7 13	24 21	25 2	18 31
56	3 0 38	9 30	19 29	28 46	8 8	25 34	26 23	19 32
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 1 30	4 10 22	5 20 22	6 29 38	8 9 3	9 26 48	11 27 45	1 20 32
4	2 22	11 15	21 15	7 0 29	9 59	28 3	11 29 5	21 32
8	3 13	12 8	22 9	1 21	10 55	9 29 17	0 0 26	22 31
12	4 5	13 1	23 2	2 12	11 51	10 0 33	1 46	23 31
16	4 56	13 53	23 55	3 3	12 48	1 49	3 6	24 30
20	5 48	14 46	24 48	3 55	13 44	3 5	4 25	25 28
24	6 39	15 39	25 41	4 46	14 41	4 22	5 44	26 26
28	7 31	16 32	26 35	5 38	15 38	5 40	7 2	27 24
32	3 8 22	4 17 25	5 27 28	7 6 29	8 16 36	10 6 58	0 8 20	1 28 22
36	9 14	18 19	28 21	7 21	17 31	8 16	9 38	1 29 19
40	10 5	19 12	5 29 14	8 12	18 32	9 35	10 56	2 0 16
44	10 57	20 5	6 0 7	9 4	19 30	10 54	12 11	1 13
48	11 48	20 58	0 59	9 55	20 29	12 14	13 27	2 9
52	12 39	21 51	1 52	10 47	21 29	13 34	14 43	3 5
56	13 31	22 44	2 45	11 38	22 28	14 55	15 57	4 1
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 22	4 23 38	6 3 38	7 12 30	8 23 28	10 16 16	0 17 12	2 4 57
4	15 14	24 31	4 30	13 22	24 28	17 37	18 26	5 52
8	16 5	25 24	5 23	14 13	25 29	18 58	19 39	6 47
12	16 57	26 18	6 16	15 5	26 30	20 20	20 52	7 42
16	17 48	27 11	7 8	15 57	27 31	21 42	22 4	8 37
20	18 40	28 5	8 0	16 49	28 33	23 5	23 16	9 32
24	19 32	28 58	8 53	17 41	8 29 35	24 28	24 27	10 26
28	20 23	4 29 52	9 45	18 33	9 0 38	25 51	25 38	11 20
32	3 21 15	5 0 45	6 10 38	7 19 25	9 1 41	10 27 14	0 26 48	2 12 14
36	22 7	1 39	11 30	20 17	2 44	10 28 37	27 58	13 8
40	22 58	2 32	12 22	21 9	3 48	11 0 1	0 29 7	14 2
44	23 50	3 26	13 14	22 2	4 52	1 24	1 0 16	14 55
48	24 42	4 19	14 6	22 54	5 57	2 48	1 24	15 49
52	25 34	5 13	14 58	23 47	7 2	4 12	2 32	16 42
56	26 26	6 6	15 50	24 39	8 8	5 36	3 39	17 35
60	3 27 18	5 7 0	6 16 42	7 25 32	9 9 14	11 7 0	1 4 46	2 18 28

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–8′	1°–10′	1°–12′	1°–14′	1°–16′	1°–19′	1°–21′	1°–24′
Variation in 3 mins.	51′	53′	54′	55′	57′	59′	1°– 1′	1°– 3′
" " 2 mins.	34	35	36	37	38	40	41	42
" " 1 min.	17	18	18	19	19	20	20	21

Ascendant for Latitude 27°.30′ North

(For Mathura 27°N28′, Dibrugarh 27°N29′ Kathmandu 27°N42 etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 18 43	3 27 26	5 7 0	6 16 34	7 25 17	9 8 58	11 7 0	1 5 1
4	19 35	28 18	7 53	17 25	26 10	10 5	8 24	6 8
8	20 27	3 29 10	8 46	18 17	27 3	11 13	9 49	7 14
12	21 20	4 0 2	9 40	19 9	27 56	12 21	11 14	8 19
16	22 12	0 54	10 33	20 1	28 50	13 29	12 38	9 24
20	23 5	1 46	11 27	20 53	7 29 43	14 38	14 2	10 28
24	23 57	2 38	12 20	21 44	8 0 37	15 47	15 26	11 32
28	24 49	3 30	13 13	22 35	1 31	16 57	16 50	12 35
32	2 25 41	4 4 22	5 14 6	6 23 27	8 2 25	9 18 8	11 18 13	1 13 38
36	26 33	5 14	15 0	24 18	3 19	19 19	19 37	14 41
40	27 25	6 6	15 53	25 10	4 13	20 30	21 0	15 43
44	28 17	6 59	16 46	26 1	5 8	21 42	22 23	16 45
48	2 29 8	7 51	17 39	26 52	6 3	22 54	23 46	17 46
52	3 0 0	8 43	18 33	27 44	6 58	24 7	25 8	18 47
56	0 51	9 36	19 26	28 35	7 53	25 21	26 30	19 48
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 1 43	4 10 28	5 20 19	6 29 27	8 8 48	9 26 35	11 27 52	1 20 48
4	2 35	11 21	21 13	7 0 18	9 43	27 50	11 29 13	21 48
8	3 26	12 14	22 6	1 10	10 39	9 29 5	0 0 34	22 47
12	4 17	13 6	22 58	2 1	11 35	10 0 21	1 55	23 47
16	5 8	13 58	23 51	2 52	12 32	1 37	3 15	24 46
20	6 0	14 51	24 44	3 43	13 28	2 54	4 35	25 44
24	6 51	15 44	25 37	4 34	14 25	4 11	5 54	26 42
28	7 43	16 37	26 30	5 26	15 22	5 29	7 12	27 40
32	3 8 34	4 17 30	5 27 23	7 6 17	8 16 20	10 6 48	0 8 31	1 28 38
36	9 26	18 23	28 16	7 9	17 18	8 6	9 49	1 29 35
40	10 17	19 16	5 29 9	8 0	18 16	9 25	11 6	2 0 32
44	11 8	20 9	6 0 2	8 52	19 14	10 45	12 23	1 28
48	11 59	21 2	0 54	9 43	20 13	12 5	13 39	2 25
52	12 50	21 54	1 46	10 34	21 13	13 26	14 55	3 21
56	13 42	22 47	2 39	11 25	22 12	14 47	16 10	4 17
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 33	4 23 41	6 3 32	7 12 17	8 23 12	10 16 8	0 17 25	2 5 12
4	15 25	24 34	4 24	13 9	24 12	17 30	18 39	6 7
8	16 16	25 27	5 17	14 0	25 13	18 52	19 53	7 2
12	17 8	26 20	6 9	14 52	26 14	20 14	21 6	7 57
16	17 59	27 13	7 1	15 43	27 15	21 37	22 18	8 52
20	18 50	28 7	7 54	16 35	28 17	23 0	23 30	9 47
24	19 42	29 0	8 46	17 27	8 29 19	24 23	24 41	10 41
28	20 33	4 29 54	9 38	18 19	9 0 22	25 47	25 52	11 35
32	3 21 25	5 0 47	6 10 30	7 19 11	9 1 25	10 27 10	0 27 3	2 12 29
36	22 16	1 40	11 22	20 3	2 28	28 34	28 13	13 23
40	23 7	2 33	12 14	20 55	3 32	10 29 58	0 29 22	14 17
44	23 59	3 27	13 6	21 48	4 36	11 1 22	1 0 31	15 10
48	24 51	4 20	13 58	22 40	5 41	2 46	1 39	16 4
52	25 43	5 14	14 50	23 33	6 46	4 11	2 47	16 57
56	26 35	6 7	15 42	24 25	7 52	5 36	3 54	17 50
60	3 27 26	5 7 0	6 16 34	7 25 17	9 8 58	11 7 0	1 5 1	2 18 43

PROPORTIONAL PARTS

Variation in 4 mins.	0°–51′	0°–53′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°-6′
Variation in 3 mins.	38′	40′	42′	43′	45′	46′	48′	49′
„ „ 2 mins.	26	27	28	29	30	31	32	33
„ „ 1 min.	13	13	14	15	15	16	16	17

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Ascendant for Latitude 28° 0′ North

(For Aligarh 27° N 51′, Bikaner 28° N 1′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 18 57	3 27 35	5 7 0	6 16 25	7 25 3	9 8 43	11 7 0	1 5 17
4	19 49	28 27	7 53	17 17	25 56	9 50	8 25	6 23
8	20 42	3 29 18	8 46	18 8	26 49	10 58	9 50	7 29
12	21 34	4 0 10	9 39	19 0	27 42	12 6	11 15	8 34
16	22 27	1 2	10 33	19 51	28 35	13 14	12 40	9 39
20	23 19	1 54	11 26	20 43	7 29 28	14 23	14 5	10 44
24	24 11	2 45	12 19	21 34	8 0 22	15 33	15 29	11 48
28	25 3	3 37	13 12	22 26	1 16	16 43	16 53	12 51
32	2 25 55	4 4 29	5 14 5	6 23 17	8 2 9	9 17 53	11 18 18	1 13 55
36	26 47	5 21	14 58	24 8	3 3	19 4	19 42	14 57
40	27 38	6 13	15 51	24 59	3 58	20 16	21 5	15 59
44	28 30	7 5	16 44	25 51	4 52	21 28	22 28	17 1
48	2 29 22	7 58	17 37	26 42	5 47	22 41	23 52	18 3
52	3 0 13	8 50	18 30	27 33	6 42	23 54	25 15	19 4
56	1 4	9 42	19 23	28 24	7 37	25 8	26 37	20 4

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 1 56	4 10 34	5 20 16	6 29 16	8 8 32	9 26 23	11 27 55	1 21 4
4	2 47	11 27	21 9	7 0 7	9 27	27 38	11 29 21	22 4
8	3 39	12 19	22 2	0 58	10 23	9 28 53	0 0 43	23 4
12	4 30	13 12	22 55	1 49	11 19	10 0 9	2 3	24 3
16	5 21	14 4	23 47	2 40	12 16	1 26	3 24	25 2
20	6 13	14 57	24 40	3 31	13 12	2 43	4 44	26 0
24	7 4	15 49	25 33	4 23	14 9	4 0	6 4	26 58
28	7 55	16 42	26 26	5 14	15 6	5 19	7 23	27 56
32	3 8 46	4 17 34	5 27 18	7 6 5	8 16 4	10 6 37	0 8 41	1 28 54
36	9 37	18 27	28 11	6 56	17 2	7 56	10 0	1 29 51
40	10 28	19 20	29 3	7 47	18 0	9 16	11 17	2 0 46
44	11 20	20 13	5 29 56	8 39	18 58	10 36	12 34	1 44
48	12 11	21 5	6 0 48	9 30	19 57	11 57	13 51	2 41
52	13 2	21 58	1 41	10 21	20 56	13 17	15 7	3 37
56	13 53	22 51	2 33	11 13	21 56	14 39	16 22	4 33

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 44	4 23 44	6 3 26	7 12 4	8 22 56	10 16 1	0 17 37	2 5 28
4	15 36	24 37	4 18	12 56	23 56	17 23	18 52	6 23
8	16 27	25 30	5 10	13 47	24 56	18 45	20 6	7 18
12	17 18	26 23	6 2	14 38	25 57	20 8	21 19	8 13
16	18 9	27 16	6 55	15 30	26 59	21 32	22 32	9 8
20	19 1	28 9	7 47	16 22	28 1	22 55	23 44	10 2
24	19 53	29 2	8 39	17 13	8 29 3	24 18	24 56	10 57
28	20 43	4 29 55	9 31	18 5	9 0 5	25 42	26 7	11 51
32	3 21 34	5 0 48	6 10 23	7 18 57	9 1 9	10 27 7	0 27 17	2 12 44
36	22 26	1 41	11 15	19 19	2 12	28 31	28 27	13 38
40	23 17	2 34	12 6	20 41	3 16	10 29 55	0 29 37	14 32
44	24 9	3 27	12 58	21 33	4 21	11 1 20	1 0 46	15 25
48	25 0	4 21	13 50	22 26	5 26	2 45	1 54	16 18
52	25 52	5 14	14 42	23 18	6 31	4 10	3 2	17 11
56	26 43	6 7	15 33	24 11	7 37	5 35	4 10	18 4
60	3 27 35	5 7 0	6 16 25	7 25 3	9 8 43	11 7 0	1 5 17	2 18 57

PROPORTIONAL PARTS

Variation in 4 mins. :	1°–8′	1°–10′	1°–12′	1°–15′	1°–17′	1°–20′	1°–22′	1°–25′
Variation in 3 mins.	51′	52′	54′	56′	58′	1°–0′	1°–1′	1°–4′
" " 2 mins.	34	35	36	38	39	40	41	43
" " 1 min.	17	18	18	19	19	20	21	21

Ascendant for DELHI, Latitude 28° 39′ North

(For all places in or near 28°39′N latitude)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 19 16	3 27 46	5 7 0	6 16 14	7 24 44	9 8 23	11 7 0	1 5 37
4	20 8	28 38	7 53	17 5	25 37	9 30	8 26	6 44
8	21 1	3 29 29	8 45	17 58	26 30	10 37	9 51	7 50
12	21 53	4 0 20	9 38	18 48	27 23	11 45	11 17	8 55
16	22 45	1 12	10 32	19 39	28 16	12 54	12 43	10 0
20	23 37	2 4	11 25	20 31	7 29 9	14 4	14 8	11 5
24	24 29	2 55	12 17	21 22	8 0 2	15 13	15 34	12 9
28	25 21	3 47	13 10	22 13	0 56	16 24	16 58	13 12
32	2 26 13	4 4 39	5 14 3	6 23 4	8 1 49	9 17 34	11 18 23	1 14 15
36	27 5	5 31	14 55	23 55	2 43	18 45	19 48	15 18
40	27 56	6 22	15 48	24 46	3 37	19 57	21 12	16 20
44	28 48	7 14	16 41	25 37	4 32	21 10	22 36	17 22
48	2 29 39	8 6	17 34	26 28	5 26	22 23	24 0	18 24
52	3 0 31	8 58	18 27	27 19	6 21	23 36	25 23	19 25
56	1 22	9 50	19 19	28 10	7 16	24 50	26 46	20 25

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 2 13	4 10 42	5 20 12	6 29 1	8 8 11	9 26 5	11 28 9	1 21 26
4	3 4	11 35	21 4	6 29 52	9 6	27 21	11 29 32	22 25
8	3 55	12 27	21 57	7 0 43	10 2	28 37	0 0 54	23 25
12	4 46	13 19	22 50	1 34	10 58	9 29 53	2 15	24 24
16	5 38	14 11	23 42	2 25	11 55	10 1 10	3 36	25 23
20	6 29	15 4	24 35	3 16	12 51	2 27	4 57	26 21
24	7 20	15 56	25 27	4 7	13 48	3 45	6 17	27 19
28	8 11	16 48	26 20	4 58	14 45	5 4	7 37	28 17
32	3 9 2	4 17 40	5 27 12	7 5 49	8 15 43	10 6 23	0 8 56	1 29 15
36	9 53	18 33	28 4	6 40	16 41	7 43	10 14	2 0 12
40	10 44	19 25	28 56	7 31	17 39	9 3	11 32	1 9
44	11 35	20 18	5 29 49	8 22	18 37	10 24	12 50	2 5
48	12 26	21 10	6 0 41	9 14	19 36	11 45	14 7	3 2
52	13 17	22 3	1 33	10 5	20 35	13 6	15 23	3 58
56	14 8	22 56	2 25	10 56	21 35	14 28	16 39	4 54

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 14 59	4 23 48	6 3 18	7 11 47	8 22 34	10 15 51	0 17 55	2 5 49
4	15 50	24 41	4 10	12 38	23 35	17 14	19 10	6 44
8	16 41	25 33	5 2	13 29	24 35	18 37	20 24	7 39
12	17 32	26 26	5 54	14 21	25 36	20 0	21 37	8 34
16	18 23	27 19	6 46	15 12	26 38	21 24	22 50	9 28
20	19 14	28 12	7 38	16 4	27 40	22 48	24 3	10 23
24	20 5	29 5	8 29	16 55	28 42	24 12	25 15	11 17
28	20 56	4 29 57	9 21	17 47	8 29 44	25 37	26 26	12 11
32	3 21 47	5 0 50	6 10 13	7 18 39	9 0 47	10 27 2	0 27 36	2 13 4
36	22 38	1 43	11 5	19 31	1 51	28 27	28 47	13 58
40	23 29	2 35	11 56	20 23	2 55	10 29 52	0 29 56	14 51
44	24 21	3 28	12 48	21 15	4 0	11 1 17	1 1 6	15 44
48	25 12	4 23	13 40	22 7	5 5	2 43	2 15	16 37
52	26 4	5 15	14 31	22 59	6 10	4 9	3 23	17 30
56	26 55	6 7	15 22	23 52	7 16	5 34	4 30	18 23
60	3 27 46	5 7 0	6 16 14	7 24 44	9 8 23	11 7 0	1 5 37	2 19 16

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–51′	0°–53′	0°–56′	0°–58′	1°–0′	1°–2′	1°–4′	1°–6′
Variation in 3 mins.	38′	40′	42′	43′	45′	46′	48′	49′
" " 2 mins.	26	27	28	29	30	31	32	33
" " 1 min.	13	13	14	15	15	16	16	17

Ascendant for Latitude 29° 0′ North

(For Meerut 29°N01′, Hissar 29°N10′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 19 26	3 27 52	5 7 0	6 16 8	7 24 34	9 8 12	11 7 0	1 5 48
4	20 19	28 44	7 53	16 59	25 26	9 19	8 26	6 55
8	21 11	3 29 35	8 45	17 50	26 19	10 26	9 52	8 1
12	22 3	4 0 26	9 38	18 41	27 12	11 34	11 18	9 7
16	22 55	1 18	10 31	19 32	28 5	12 43	12 44	10 12
20	23 47	2 9	11 24	20 24	28 58	13 53	14 10	11 16
24	24 39	3 1	12 16	21 15	7 29 51	15 2	15 36	12 21
28	25 31	3 52	13 9	22 6	8 0 45	16 13	17 1	13 24
32	2 26 23	4 4 44	5 14 2	6 22 57	8 1 38	9 17 24	11 18 26	1 14 27
36	27 14	5 36	14 54	23 48	2 32	18 35	19 51	15 30
40	28 6	6 27	15 47	24 39	3 26	19 47	21 16	16 32
44	28 57	7 19	16 40	25 30	4 21	21 0	22 40	17 34
48	2 29 48	8 11	17 32	26 21	5 15	22 13	24 5	18 36
52	3 0 40	9 3	18 25	27 12	6 10	23 27	25 28	19 37
56	1 31	9 55	19 17	28 3	7 5	24 41	26 52	20 37

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 2 22	4 10 47	5 20 10	6 28 53	8 8 0	9 25 56	11 28 15	1 21 38
4	3 13	11 39	21 2	6 29 44	8 55	27 12	11 29 38	22 37
8	4 4	12 31	21 55	7 0 35	9 51	28 28	0 1 0	23 37
12	4 55	13 23	22 47	1 26	10 47	9 29 44	2 22	24 36
16	5 47	14 15	23 40	2 17	11 43	10 1 2	3 43	25 35
20	6 38	15 7	24 32	3 8	12 40	2 19	5 4	26 33
24	7 28	15 59	25 24	3 59	13 37	3 38	6 24	27 31
28	8 19	16 51	26 17	4 50	14 34	4 56	7 44	28 29
32	3 9 10	4 17 43	5 27 9	7 5 41	8 15 31	10 6 16	0 9 3	1 29 26
36	10 1	18 36	28 1	6 31	16 29	7 36	10 22	2 0 23
40	10 52	19 28	28 53	7 22	17 27	8 56	11 40	1 20
44	11 43	20 20	5 29 45	8 13	18 25	10 17	12 58	2 17
48	12 34	21 13	6 0 37	9 5	19 24	11 38	14 16	3 13
52	13 25	22 5	1 29	9 56	20 23	13 0	15 32	4 9
56	14 16	22 58	2 21	10 47	21 23	14 22	16 48	5 5

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 15 7	4 23 50	6 3 13	7 11 38	8 22 22	10 15 45	0 18 4	2 6 0
4	15 57	24 43	4 5	12 29	23 23	17 8	19 19	6 55
8	16 48	25 35	4 57	13 20	24 23	18 32	20 33	7 50
12	17 39	26 28	5 49	14 12	25 24	19 56	21 47	8 45
16	18 30	27 20	6 41	15 3	26 26	21 20	23 0	9 39
20	19 21	28 13	7 33	15 54	27 23	22 44	24 13	10 34
24	20 12	29 6	8 24	16 46	28 30	24 9	25 25	11 28
28	21 3	4 29 58	9 16	17 37	8 29 33	25 34	26 36	12 22
32	3 21 54	5 0 51	6 10 8	7 18 29	9 0 36	10 26 59	0 27 47	2 13 15
36	22 45	1 44	10 59	19 21	1 40	28 24	0 28 58	14 9
40	23 36	2 36	11 51	20 13	2 44	10 29 50	1 0 7	15 2
44	24 28	3 29	12 42	21 5	3 48	11 1 16	1 17	15 55
48	25 19	4 22	13 34	21 57	4 53	2 42	2 25	16 48
52	26 10	5 15	14 25	22 49	5 59	4 8	3 34	17 41
56	27 1	6 7	15 16	23 41	7 5	5 34	4 41	18 34
60	3 27 52	5 7 0	6 16 8	7 24 34	9 8 12	11 7 0	1 5 48	2 19 26

PROPORTIONAL PARTS

Variation in 4 mins. :	1°−8′	1°−11′	1°−13′	1°−16′	1°−18′	1°−21′	1°−23′	1°−26′
Variation in 3 mins.	51′	53′	55′	57′	58′	1−1′	1−2′	1−4′
„ „ 2 mins.	34	36	37	38	39	41	42	43
„ „ 1 min.	17	18	18	19	20	20	21	22

Ascendant for Latitude 30° 0′ North

(For Hardwar 29°N56′, Quetta 30°N12′, Dehra Dun 30°N19′ etc.

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 19 56	3 28 10	5 7 0	6 15 50	7 24 4	9 7 39	11 7 0	1 6 21
4	20 49	29 1	7 52	16 41	24 56	8 46	8 27	7 28
8	21 41	3 29 52	8 45	17 32	25 49	9 54	9 54	8 34
12	22 33	4 0 43	9 37	18 23	26 41	11 2	11 22	9 40
16	23 24	1 34	10 29	19 13	27 34	12 11	12 49	10 45
20	24 16	2 25	11 21	20 4	28 27	13 21	14 16	11 50
24	25 8	3 16	12 14	20 55	7 29 20	14 31	15 42	12 54
28	25 59	4 8	13 6	21 46	8 0 13	15 42	17 9	13 58
32	2 26 51	4 4 59	5 13 58	6 22 36	8 1 7	9 16 53	11 18 35	1 15 1
36	27 42	5 50	14 50	23 27	2 1	18 5	20 1	16 4
40	28 33	6 42	15 43	24 18	2 55	19 17	21 27	17 6
44	2 29 25	7 33	16 35	25 8	3 49	20 30	22 53	18 8
48	3 0 16	8 24	17 27	25 59	4 43	21 44	24 18	19 10
52	1 7	9 16	18 19	26 50	5 37	22 58	25 43	20 11
56	1 58	10 7	19 11	27 40	6 32	24 13	27 7	21 11
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 2 49	4 10 59	5 20 4	6 28 31	8 7 27	9 25 29	11 28 31	1 22 11
4	3 40	11 50	20 56	6 29 22	8 23	26 45	11 29 55	23 11
8	4 31	12 42	21 48	7 0 12	9 18	28 2	0 1 18	24 11
12	5 21	13 34	22 40	1 3	10 14	9 29 19	2 41	25 10
16	6 12	14 25	23 32	1 53	11 10	10 0 37	4 3	26 8
20	7 3	15 17	24 24	2 44	12 7	1 55	5 25	27 7
24	7 53	16 9	25 15	3 35	13 3	3 14	6 46	28 5
28	8 44	17 1	26 7	4 25	14 0	4 34	8 6	1 29 2
32	3 9 35	4 17 53	5 26 59	7 5 16	8 14 58	10 5 54	0 9 26	2 0 0
36	10 25	18 45	27 51	6 7	15 55	7 14	10 46	0 57
40	11 16	19 36	28 43	6 57	16 53	8 35	12 5	1 53
44	12 7	20 28	5 29 35	7 48	17 52	9 57	13 23	2 50
48	12 57	21 20	6 0 26	8 39	18 50	11 19	14 41	3 46
52	13 48	22 12	1 18	9 29	19 49	12 42	15 58	4 42
56	14 38	23 4	2 10	10 20	20 49	14 5	17 15	5 37
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 15 29	4 23 57	6 3 1	7 11 11	8 21 49	10 15 29	0 18 31	2 6 33
4	16 20	24 49	3 53	12 2	22 49	16 53	19 47	7 28
8	17 10	25 41	4 44	12 53	23 49	18 17	21 2	8 23
12	18 1	26 33	5 36	13 44	24 50	19 42	22 16	9 17
16	18 52	27 25	6 27	14 35	25 52	21 7	23 30	10 11
20	19 42	28 17	7 18	15 27	26 54	22 33	24 43	11 5
24	20 33	4 29 10	8 10	16 18	27 56	23 59	25 55	11 59
28	21 24	5 0 2	9 1	17 9	8 28 59	25 25	27 7	12 53
32	3 22 14	5 0 54	6 9 52	7 18 1	9 0 2	10 26 51	0 28 18	2 13 47
36	23 5	1 46	10 44	18 52	1 6	28 18	0 29 29	14 40
40	23 56	2 39	11 35	19 44	2 10	10 29 44	1 0 39	15 33
44	24 47	3 31	12 26	20 36	3 15	11 1 11	1 49	16 26
48	25 37	4 23	13 17	21 27	4 20	2 38	2 58	17 19
52	26 28	5 15	14 8	22 19	5 26	4 6	4 6	18 11
56	27 19	6 8	14 59	23 11	6 32	5 33	5 14	19 4
60	3 28 10	5 7 0	6 15 50	7 24 4	9 7 39	11 7 0	1 6 21	2 19 56

PROPORTIONAL PARTS

Variation in 4 mins. :	0°−50′	0°−53′	0°−55′	0°−58′	1°−0′	1°−3′	1°−5′	1°−8′
Variation in 3 mins.	37′	40′	41′	43′	45′	47′	49′	51′
" " 2 mins.	25	27	28	29	30	32	33	34
" " 1 min.	13	13	14	15	15	16	16	17

Ascendant for Latitude 31° 0′ North

(For Simla 31° N 6′, Ludhiana and Ferozepur 30° N 55′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 20 27	3 28 28	5 7 0	6 15 32	7 23 33	9 7 5	11 7 0	1 6 55
4	21 19	3 29 18	7 52	16 23	24 25	8 13	8 28	8 2
8	22 11	4 0 9	8 44	17 13	25 18	9 21	9 57	9 8
12	23 3	1 0	9 36	18 4	26 10	10 29	11 25	10 14
16	23 54	1 51	10 28	18 54	27 3	11 38	12 53	11 19
20	24 46	2 41	11 19	19 45	27 55	12 48	14 22	12 24
24	25 37	3 32	12 11	20 35	28 48	13 59	15 50	13 29
28	26 28	4 23	13 3	21 26	7 29 41	15 10	17 17	14 33
32	2 27 19	4 5 14	5 13 55	6 22 16	8 0 35	9 16 21	11 18 45	1 15 38
36	28 11	6 5	14 47	23 6	1 28	17 33	20 12	16 39
40	29 2	6 56	15 38	23 57	2 22	18 46	21 39	17 41
44	2 29 52	7 47	16 30	24 47	3 16	20 0	23 5	18 43
48	3 0 43	8 38	17 22	25 37	4 10	21 14	24 32	19 44
52	1 34	9 29	18 14	26 28	5 5	22 29	25 58	20 46
56	2 25	10 20	19 5	27 18	5 59	23 44	27 23	21 46
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 3 16	4 11 11	5 19 57	6 28 8	8 6 54	9 25 0	11 28 48	1 22 46
4	4 6	12 2	20 49	28 59	7 49	26 17	0 0 13	23 46
8	4 57	12 54	21 41	6 29 49	8 45	27 34	1 37	24 45
12	5 47	13 45	22 32	7 0 39	9 40	9 28 52	3 0	25 44
16	6 38	14 36	23 24	1 30	10 36	10 0 11	4 24	26 43
20	7 28	15 27	24 15	2 20	11 33	1 30	5 46	27 41
24	8 19	16 19	25 7	3 10	12 29	2 49	7 8	28 39
28	9 9	17 10	25 58	4 0	13 26	4 10	8 29	1 29 37
32	3 9 59	4 18 2	5 26 50	7 4 51	8 14 23	10 5 31	0 9 50	2 0 34
36	10 50	18 53	27 41	5 41	15 21	6 52	11 11	1 31
40	11 40	19 45	28 33	6 32	16 19	8 14	12 30	2 27
44	12 30	20 36	5 29 24	7 22	17 17	9 37	13 49	3 24
48	13 21	21 28	6 0 15	8 13	18 16	11 0	15 8	4 20
52	14 11	22 19	1 6	9 3	19 15	12 23	16 26	5 15
56	15 1	23 11	1 58	9 54	20 14	13 47	17 43	6 11
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 15 52	4 24 3	6 2 49	7 10 44	8 21 14	10 15 12	0 19 0	2 7 6
4	16 42	24 55	3 40	11 35	22 14	16 37	20 16	8 1
8	17 32	25 46	4 31	12 26	23 14	18 2	21 31	8 55
12	18 23	26 38	5 2	13 17	24 16	19 28	22 46	9 50
16	19 13	27 30	6 13	14 8	25 17	20 55	24 0	10 44
20	20 3	28 21	7 4	14 58	26 19	22 21	25 14	11 38
24	20 51	4 29 13	7 55	15 49	27 21	23 48	26 27	12 32
28	21 41	5 0 5	8 46	16 41	28 24	25 15	27 39	13 25
32	3 22 34	5 0 57	6 9 37	7 17 32	8 29 27	10 26 43	0 28 50	2 14 19
36	23 25	1 49	10 28	18 23	9 0 31	28 10	1 0 1	15 12
40	24 15	2 41	11 19	19 14	1 36	10 29 38	1 12	16 5
44	25 6	3 32	12 9	20 6	2 40	11 1 6	2 22	16 57
48	25 56	4 24	13 0	20 57	3 46	2 35	3 31	17 50
52	26 47	5 16	13 51	21 49	4 52	4 3	4 40	18 42
56	27 37	6 8	14 42	22 41	5 58	5 32	5 48	19 35
60	3 28 28	5 7 0	6 15 32	7 23 33	9 7 5	11 7 0	1 6 55	2 20 27

PROPORTIONAL PARTS

Variation in 4 mins. :	1° – 10′	1° – 13′	1° – 15′	1° – 18′	1° – 20′	1° – 23′	1° – 25′	1° – 28′
Variation in 3 mins.	52′	55′	56′	58′	1° – 0′	1° – 2′	1° – 4′	1° – 6′
" " 2 mins.	35	37	38	39	40	42	43	44
" " 1 min.	18	18	19	20	20	21	21	22

Ascendant for LAHORE, Latitude 31° 36′ North

(Also for Amritsar 31°N38′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 20 46	3 28 39	5 7 0	6 15 21	7 23 14	9 6 44	11 7 0	1 7 16
4	21 38	3 29 29	7 51	16 12	24 26	7 52	8 29	8 23
8	22 29	4 0 19	8 43	17 2	24 59	9 0	9 58	9 30
12	23 21	1 10	9 35	17 53	25 51	10 9	11 27	10 36
16	24 12	2 1	10 27	18 43	26 44	11 18	12 56	11 41
20	25 3	2 51	11 18	19 33	27 36	12 28	14 26	12 46
24	25 55	3 42	12 10	20 23	28 29	13 39	15 54	13 51
28	26 46	4 32	13 1	21 13	7 29 22	14 50	17 22	14 54
32	2 27 37	4 5 23	5 13 53	6 22 3	8 0 15	9 16 2	11 18 51	1 15 58
36	28 28	6 13	14 45	22 53	1 8	17 14	20 19	17 1
40	2 29 19	7 4	15 36	23 44	2 2	18 27	21 46	18 3
44	3 0 9	7 55	16 28	24 34	2 56	19 41	23 13	19 5
48	1 0	8 46	17 19	25 24	3 50	20 55	24 40	20 6
52	1 51	9 37	18 10	26 14	4 45	22 10	26 7	21 7
56	2 41	10 28	19 2	27 4	5 39	23 26	27 33	22 8

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 3 32	4 11 19	5 19 53	6 27 54	8 6 34	9 24 43	11 28 59	1 23 8
4	4 22	12 10	20 45	28 45	7 29	25 0	0 0 24	24 8
8	5 13	13 1	21 36	6 29 35	8 24	27 17	1 48	25 7
12	6 3	13 52	22 28	7 0 25	9 20	28 35	3 13	26 6
16	6 54	14 43	23 19	1 15	10 16	9 29 54	4 37	27 5
20	7 44	15 34	24 10	2 5	11 12	10 1 14	5 59	28 3
24	8 34	16 25	25 2	2 56	12 8	2 34	7 22	29 0
28	9 24	17 16	25 53	3 46	13 5	3 55	8 44	1 29 58
32	3 10 14	4 18 7	5 26 44	7 4 36	8 14 2	10 5 16	0 10 5	2 0 55
36	11 4	18 58	27 35	5 26	15 0	6 38	11 26	1 52
40	11 55	19 50	28 26	6 16	15 57	8 1	12 46	2 48
44	12 45	20 41	5 29 17	7 6	16 55	9 23	14 6	3 44
48	13 35	21 32	6 0 8	7 57	17 54	10 47	15 25	4 40
52	14 25	22 24	0 59	8 47	18 53	12 12	16 43	5 36
56	15 15	23 15	1 51	9 38	19 52	13 36	18 0	6 31

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 16 6	4 24 7	6 2 42	7 10 28	8 20 52	10 15 1	0 19 17	2 7 26
4	16 56	24 58	3 32	11 19	21 52	16 27	20 34	8 21
8	17 46	25 50	4 23	12 9	22 53	17 53	21 50	9 15
12	18 36	26 41	5 14	13 00	23 54	19 20	23 5	10 9
16	19 26	27 32	6 05	13 51	24 55	20 47	24 19	11 4
20	20 16	28 24	6 56	14 41	25 57	22 14	25 33	11 58
24	21 7	4 29 15	7 47	15 32	26 59	23 41	26 46	12 52
28	21 57	5 0 7	8 37	16 23	28 2	25 9	27 58	13 45
32	3 22 47	5 0 59	6 9 28	7 17 14	8 29 5	10 26 38	0 29 10	2 14 38
36	23 37	1 50	10 18	18 5	9 0 9	28 6	1 0 21	15 31
40	24 27	2 42	11 9	18 57	1 14	10 29 35	1 32	16 24
44	25 17	3 33	11 59	19 48	2 19	11 1 4	2 42	17 16
48	26 7	4 25	12 50	20 39	3 24	2 33	3 51	18 9
52	26 58	5 17	13 41	21 31	4 30	4 2	5 0	19 1
56	27 48	6 9	14 31	22 22	5 37	5 31	6 8	19 54
60	3 28 39	5 7 0	6 15 21	7 23 14	9 6 44	11 7 0	1 7 16	2 20 46

PROPORTIONAL PARTS

Variation in 4 mins. :	0° – 50′	0° – 53′	0° – 56′	0° – 58′	1° – 1′	1° – 4′	1° – 6′	1° – 9′
Variation in 3 mins :	37′	40′	42′	43′	46′	48′	49′	52′
" " 2 mins :	25	27	28	29	31	32	33	35
" " 1 min.	13	13	14	15	15	16	17	17

Ascendant for Latitude 32° 0′ North

(For Gurdaspur 32° N 03′, Pathankot 32° N 17′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 20 58	3 28 46	5 7 0	6 15 14	7 23 2	9 6 30	11 7 0	1 7 30
4	21 50	3 29 36	7 51	16 5	23 54	7 38	8 30	8 37
8	22 41	4 0 26	8 43	16 55	24 46	8 46	9 59	9 44
12	23 33	1 17	9 34	17 45	25 38	9 55	11 29	10 50
16	24 24	2 7	10 26	18 35	26 31	11 4	12 58	11 55
20	25 15	2 57	11 17	19 25	27 23	12 14	14 28	13 0
24	26 7	3 48	12 9	20 15	28 16	13 25	15 57	14 5
28	26 58	4 38	13 0	21 5	7 29 9	14 36	17 26	15 8
32	2 27 48	4 5 29	5 13 52	6 21 55	8 0 2	9 15 48	11 18 55	1 16 12
36	28 39	6 19	14 43	22 45	0 55	17 1	20 23	17 15
40	2 29 30	7 10	15 34	23 35	1 49	18 14	21 51	18 17
44	3 0 21	8 1	16 26	24 25	2 43	19 28	23 19	19 19
48	1 11	8 51	17 17	25 15	3 37	20 43	24 46	20 20
52	2 2	9 42	18 8	26 5	4 31	21 58	26 13	21 21
56	2 52	10 33	19 0	26 55	5 25	23 14	27 40	22 22
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 3 43	4 11 23	5 19 51	6 27 45	8 6 20	9 24 31	11 29 6	1 23 22
4	4 33	12 14	20 42	28 35	7 15	25 48	0 0 31	24 22
8	5 24	13 5	21 33	6 29 25	8 10	27 6	1 56	25 21
12	6 14	13 56	22 25	7 0 15	9 6	28 24	3 21	26 20
16	7 4	14 47	23 16	1 5	10 2	9 29 43	4 45	27 19
20	7 54	15 38	24 7	1 55	10 58	10 1 3	6 8	28 17
24	8 44	16 29	24 58	2 46	11 54	2 24	7 31	1 29 14
28	9 34	17 20	25 49	3 36	12 51	3 45	8 53	2 0 12
32	3 10 24	4 18 11	5 26 40	7 4 26	8 13 48	10 5 7	0 10 15	2 1 9
36	11 14	19 2	27 31	5 16	14 46	6 29	11 36	2 6
40	12 5	19 53	28 22	6 6	15 43	7 52	12 57	3 2
44	12 55	20 44	5 29 13	6 56	16 41	9 15	14 17	3 58
48	13 45	21 35	6 0 4	7 46	17 40	10 39	15 36	4 54
52	14 35	22 27	0 55	8 36	18 39	12 4	16 54	5 50
56	15 25	23 18	1 46	9 27	19 38	13 29	18 12	9 45
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 16 15	4 24 9	6 2 37	7 10 17	8 20 38	10 14 54	0 19 29	2 7 40
4	17 5	25 00	3 27	11 8	21 38	16 20	20 46	8 35
8	17 55	25 52	4 18	11 58	22 39	17 47	22 2	9 29
12	18 45	26 43	5 9	12 49	23 40	19 14	23 17	10 23
16	19 35	27 34	5 59	13 39	24 41	20 41	24 32	11 17
20	20 25	28 26	6 50	14 30	25 43	22 9	25 46	12 11
24	21 15	4 29 17	7 41	15 21	26 45	23 37	26 59	13 5
28	22 5	5 0 8	8 31	16 12	27 48	25 5	28 12	13 58
32	3 22 55	5 1 0	6 9 22	7 17 2	8 28 52	10 26 34	0 29 24	2 14 51
36	23 45	1 51	10 12	17 53	8 29 56	28 3	1 0 35	15 44
40	24 35	2 43	11 3	18 45	9 1 0	10 29 32	1 46	16 37
44	25 25	3 34	11 53	19 36	2 5	11 1 2	2 56	17 29
48	26 15	4 26	12 43	20 27	3 10	2 31	4 5	18 22
52	27 5	5 17	13 34	21 19	4 16	4 1	5 14	19 14
56	27 55	6 9	14 24	22 10	5 23	5 30	6 22	20 6
60	3 28 46	5 7 0	6 15 14	7 23 2	9 6 30	11 7 0	1 7 30	2 20 58

PROPORTIONAL PARTS

Variation in 4 mins :	1° – 11′	1° – 14′	1° · 16′	1° – 19′	1° – 21′	1° – 24′	1° – 27′	1° – 30′
Variation in 3 mins.	53′	55′	57′	59′	1° – 1′	1 – 3′	1° – 5′	1° – 7′
" " 2 mins.	36	37	38	40	41	42	44	45
" " 1 min.	18	19	19	20	20	21	22	23

Ascendant for Latitude 33° 0′ North

(For Jammu 32°N43′, Bannu 33°N0′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 21 29	3 29 4	5 7 0	6 14 56	7 22 31	9 5 54	11 7 0	1 8 6
4	22 21	3 29 54	7 51	15 46	23 22	7 2	8 31	9 13
8	23 12	4 0 44	8 42	16 36	24 14	8 10	10 2	10 20
12	24 4	1 34	9 33	17 26	25 6	9 19	11 33	11 26
16	24 55	2 24	10 24	18 16	25 58	10 29	13 4	12 32
20	25 46	3 14	11 15	19 5	26 51	11 39	14 34	13 37
24	26 37	4 4	12 6	19 55	27 43	12 50	16 5	14 41
28	27 27	4 54	12 57	20 45	28 36	14 2	17 35	15 45
32	2 28 18	4 5 44	5 13 48	6 21 35	7 29 29	9 15 14	11 19 5	1 16 48
36	29 9	6 34	14 39	22 24	8 0 22	16 27	20 35	17 51
40	2 29 59	7 24	15 30	23 14	1 15	17 41	22 4	18 54
44	3 0 50	8 15	16 21	24 4	2 9	18 55	23 33	19 56
48	1 40	9 5	17 12	24 53	3 3	20 10	25 2	20 57
52	2 30	9 55	18 3	25 43	3 57	21 26	26 30	21 58
56	3 20	10 46	18 54	26 33	4 51	22 42	27 57	22 59

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 4 10	4 11 36	5 19 45	6 27 22	8 5 45	9 23 59	11 29 24	1 23 59
4	5 1	12 26	20 35	28 12	6 40	25 17	0 0 51	24 58
8	5 51	13 17	21 26	29 2	7 35	26 36	0 2 17	25 58
12	6 41	14 7	22 17	6 29 51	8 31	27 55	3 43	26 56
16	7 30	14 53	23 8	7 0 41	9 26	9 29 15	5 8	27 55
20	8 20	15 48	33 58	1 31	10 22	10 0 35	6 32	28 53
24	9 10	16 39	24 49	2 20	11 18	1 56	7 56	1 29 51
28	10 0	17 29	25 40	3 10	12 15	3 18	9 19	2 0 48
32	3 10 50	4 18 20	5 26 30	7 4 0	8 13 12	10 4 41	0 10 42	2 1 45
36	11 40	19 11	27 21	4 50	14 9	6 4	12 4	2 42
40	12 29	20 2	28 12	5 40	15 7	7 28	13 25	3 38
44	13 19	20 52	29 2	6 30	16 5	8 52	14 45	4 34
48	14 9	21 43	5 29 53	7 19	17 3	10 17	16 5	5 30
52	14 58	22 34	6 0 43	8 9	18 2	11 43	17 24	6 25
56	15 48	23 25	1 34	8 59	19 2	13 9	18 42	7 20

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 16 38	4 24 15	6 2 24	7 9 50	8 20 1	10 14 36	0 20 0	2 8 15
4	17 27	25 6	3 14	10 40	21 1	16 3	21 17	9 9
8	18 17	25 57	4 5	11 30	22 2	17 30	22 34	10 3
12	19 7	26 48	4 55	12 20	23 3	18 58	23 50	10 57
16	19 56	27 39	5 45	13 10	24 4	20 27	25 5	11 51
20	20 46	28 30	6 36	14 1	25 6	21 56	26 19	12 45
24	21 36	4 29 21	7 26	14 51	26 9	23 25	27 33	13 38
28	22 25	5 0 12	8 16	15 42	27 12	24 55	28 46	14 31
32	3 23 15	5 1 3	6 9 6	7 16 33	8 28 15	10 26 25	0 29 58	2 15 24
36	24 5	1 54	9 56	17 23	8 29 19	27 55	1 1 10	16 17
40	24 55	2 45	10 46	18 14	9 0 23	10 29 26	2 21	17 9
44	25 44	3 36	11 36	19 5	1 28	11 0 56	3 31	18 2
48	26 34	4 27	12 26	19 56	2 34	2 27	4 41	18 54
52	27 24	5 18	13 16	20 48	3 40	3 58	5 50	19 46
56	23 14	6 9	14 6	21 39	4 47	5 29	6 58	20 38
60	3 29 4	5 7 0	6 14 56	7 22 31	9 5 54	11 7 0	1 8 6	2 21 29

PROPORTIONAL PARTS

Variation in 4 mins.	0°–49′	0°–52′	0°–55′	0°–58′	1°–1′	1°–4′	1°–7′	1°–10′
Variation in 3 mins.	37′	39′	41′	43′	46′	48′	50′	52′
" 2 mins.	25	26	28	29	31	32	34	35
" 1 min.	12	13	14	15	15	16	17	18

Ascendant for Latitude 34° 0' North

(For Peshawar 34°N01', Srinagar 34°N06', etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
0	2 22 2	3 29 22	5 7 0	6 14 38	7 21 58	9 5 16	11 7 0	1 8 44
4	22 53	4 0 12	7 51	15 27	22 50	6 24	8 32	9 51
8	23 44	1 1	8 41	16 17	23 41	7 33	10 5	10 58
12	24 35	1 51	9 32	17 6	24 33	8 42	11 37	12 4
16	25 26	2 40	10 22	17 56	25 25	9 52	13 9	13 10
20	26 17	3 30	11 13	18 45	26 17	11 3	14 41	14 15
24	27 7	4 20	12 4	19 35	27 10	12 14	16 13	15 19
28	27 58	5 9	12 54	20 24	28 2	13 26	17 45	16 23
32	2 28 48	4 5 59	5 13 45	6 21 14	7 28 55	9 14 39	11 19 16	1 17 27
36	2 29 38	6 49	14 35	22 3	7 29 48	15 52	20 47	18 30
40	3 0 29	7 39	15 26	22 52	8 0 41	17 6	22 18	19 32
44	1 19	8 29	16 16	23 42	1 34	18 21	23 48	20 34
48	2 9	9 19	17 7	24 31	2 28	19 37	25 18	21 35
52	2 59	10 9	17 57	25 20	3 21	20 53	26 47	22 36
56	3 49	10 59	18 48	26 10	4 15	22 10	28 16	23 36
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 4 39	4 11 48	5 19 38	6 26 59	8 5 10	9 23 27	11 29 44	1 24 36
4	5 28	12 38	20 28	27 48	6 4	24 46	0 1 12	25 36
8	6 18	13 29	21 19	28 38	6 59	26 5	2 39	26 35
12	7 8	14 19	22 9	6 29 27	7 54	27 25	4 5	27 34
16	7 57	15 9	23 0	7 0 16	8 50	9 28 45	5 31	28 32
20	8 47	15 59	23 50	1 6	9 46	10 0 6	6 57	1 29 30
24	9 36	16 49	24 40	1 55	10 42	1 28	8 21	2 0 28
28	10 26	17 39	25 31	2 45	11 38	2 51	9 46	1 25
32	3 11 15	4 18 29	5 26 21	7 3 34	8 12 35	10 4 14	0 11 9	2 2 22
36	12 5	19 20	27 11	4 24	13 32	5 39	12 32	3 18
40	12 54	20 10	28 1	5 13	14 30	7 3	13 54	4 14
44	13 44	21 0	28 51	6 3	15 28	8 29	15 15	5 10
48	14 33	21 51	5 29 41	6 52	16 26	9 55	16 35	6 6
52	15 22	22 41	6 0 31	7 42	17 25	11 21	17 55	7 1
56	16 12	23 32	1 22	8 32	18 24	12 48	19 14	7 56
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 17 1	4 24 22	6 2 12	7 9 21	8 19 24	10 14 16	0 20 33	2 8 50
4	17 50	25 12	3 1	10 11	20 24	15 44	21 50	9 45
8	18 40	26 3	3 51	11 1	21 24	17 13	23 7	10 39
12	19 29	26 53	4 41	11 51	22 25	18 42	24 23	11 32
16	20 18	27 44	5 31	12 41	23 26	20 12	25 39	12 26
20	21 8	28 34	6 21	13 31	24 28	21 42	26 54	13 19
24	21 57	4 29 25	7 11	14 22	25 30	23 13	28 8	14 12
28	22 46	5 0 15	8 1	15 12	26 33	24 44	0 29 21	15 5
32	3 23 36	5 1 6	6 8 51	7 16 2	8 27 37	10 26 15	1 0 34	2 15 58
36	24 25	1 56	9 40	16 53	28 41	27 47	1 46	16 50
40	25 15	2 47	10 30	17 43	8 29 45	10 29 19	2 57	17 43
44	26 4	3 38	11 20	18 34	9 0 50	11 0 51	4 8	18 35
48	26 54	4 28	12 9	19 25	1 56	2 23	5 18	19 27
52	27 43	5 19	12 59	20 16	3 2	3 55	6 27	20 19
56	28 33	6 9	13 48	21 7	4 9	5 28	7 36	21 10
60	3 29 22	5 7 0	6 14 38	7 21 58	9 5 16	11 7 0	1 8 44	2 22 2

PROPORTIONAL PARTS

Variation in 4 mins.:	1°–12'	1°–15'	1°–17'	1°–20'	1°–23'	1°–26'	1°–29'	1°–32'
Variation in 3 mins.	54'	56'	58'	1°–0'	1°–2'	1°–4'	1°–7'	1°–9'
" " 2 mins.	36	38	39	40	42	43	45	46
" " 1 min.	18	19	19	20	21	22	22	23

Ascendant for Latitude 35° 0′ North

(For all place in or near 35° N. latitude)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 22 34	3 29 40	5 7 0	6 14 20	7 21 26	9 4 38	11 7 0	1 9 22
4	23 25	4 0 30	7 50	15 9	22 17	5 46	8 34	10 30
8	24 16	1 19	8 40	15 58	23 8	6 55	10 8	11 37
12	25 7	2 8	9 30	16 47	24 0	8 4	11 42	12 43
16	25 57	2 57	10 21	17 36	24 51	9 14	13 15	13 49
20	26 48	3 47	11 11	18 25	25 43	10 25	14 49	14 54
24	27 38	4 36	12 1	19 14	26 35	11 37	16 22	15 58
28	28 28	5 25	12 51	20 3	27 28	12 49	17 55	17 2
32	2 29 19	4 6 15	5 13 41	6 20 52	7 28 20	9 14 2	11 19 28	1 18 6
36	3 0 9	7 4	14 31	21 41	7 29 13	15 16	21 0	19 9
40	0 59	7 53	15 21	22 30	8 0 5	16 30	22 32	20 11
44	1 48	8 43	16 11	23 19	0 58	17 45	24 3	21 13
48	2 38	9 32	17 1	24 8	1 52	19 1	25 34	22 14
52	3 28	10 22	17 52	24 57	2 45	20 18	27 5	23 15
56	4 17	11 12	18 42	25 46	3 39	21 35	11 28 35	24 15
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 5 7	4 12 1	5 19 32	6 26 35	8 4 33	9 22 54	0 0 5	1 25 15
4	5 56	12 51	20 22	27 24	5 28	24 13	1 34	26 15
8	6 46	13 40	21 12	28 13	6 22	25 32	3 2	27 14
12	7 35	14 30	22 2	29 2	7 17	26 53	4 29	28 12
16	8 25	15 20	22 52	6 29 51	8 13	28 14	5 56	1 29 10
20	9 14	16 10	23 41	7 0 41	9 8	9 29 36	7 23	2 0 8
24	10 3	16 59	24 31	1 30	10 4	10 0 59	8 48	1 6
28	10 52	17 49	25 21	2 19	11 1	2 22	10 13	2 3
32	3 11 41	4 18 39	5 26 11	7 3 8	8 11 57	10 3 47	0 11 38	2 2 59
36	12 30	19 29	27 1	3 57	12 54	5 12	13 1	3 56
40	13 19	20 19	27 51	4 46	13 52	6 37	14 24	4 52
44	14 9	21 9	28 40	5 35	14 50	8 4	15 46	5 47
48	14 58	21 58	5 29 30	6 25	15 48	9 31	17 7	6 43
52	15 47	22 48	6 0 20	7 14	16 46	10 58	18 28	7 38
56	16 36	23 38	1 9	8 4	17 45	12 26	19 47	8 32
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 17 25	4 24 28	6 1 59	7 8 53	8 18 45	10 13 55	0 21 6	2 9 27
4	18 14	25 18	2 48	9 43	19 45	15 25	22 25	10 21
8	19 3	26 8	3 38	10 32	20 45	16 55	23 42	11 15
12	19 52	26 59	4 28	11 22	21 46	18 26	24 59	12 8
16	20 41	27 49	5 17	12 12	22 47	19 57	26 15	13 2
20	21 30	28 39	6 7	13 1	23 49	21 28	27 30	13 55
24	22 19	4 29 29	6 56	13 51	24 51	23 0	28 44	14 47
28	23 8	5 0 19	7 45	14 41	25 54	24 32	0 29 58	15 40
32	3 23 57	5 1 9	6 8 35	7 15 32	8 26 58	10 26 5	1 1 11	2 16 32
36	24 46	1 59	9 24	16 22	28 2	27 38	2 23	17 25
40	25 35	2 49	10 13	17 12	8 29 6	10 29 11	3 35	18 17
44	26 24	3 39	11 3	18 3	9 0 11	11 0 45	4 46	19 9
48	27 13	4 30	11 52	18 53	1 17	2 18	5 56	20 0
52	28 2	5 20	12 41	19 44	2 23	3 52	7 6	20 52
56	28 51	6 10	13 30	20 35	3 30	5 26	8 14	21 43
60	3 29 40	5 7 0	6 14 20	7 21 26	9 4 38	11 7 0	1 9 22	2 22 34

PROPORTIONAL PARTS

Variation in 4 mins. :	0°–49′	0°–52′	0°–55′	0°–58′	1°–1′	1°–4′	1°–7′	1°–10′
Variation in 3 mins.	37′	39′	41′	43′	46′	48′	50′	52′
" " 2 mins.	25	26	28	29	31	32	34	35
" " 1 min.	12	13	14	15	15	16	17	18

Ascendant for Latitude 36° 0′ North

(For Tokyo 35°N40′, Tehran 35°N41′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 23 8	3 29 59	5 7 0	6 14 1	7 20 52	9 3 57	11 7 0	1 10 3
4	23 58	4 0 48	7 50	14 50	21 43	5 6	8 35	11 10
8	24 49	1 37	8 39	15 38	22 34	6 15	10 11	12 17
12	25 39	2 26	9 29	16 27	23 26	7 24	11 46	13 24
16	26 30	3 14	10 19	17 16	24 17	8 35	13 22	14 30
20	27 20	4 3	11 9	18 5	25 9	9 46	14 57	15 35
24	28 10	4 52	11 58	18 53	26 0	10 58	16 31	16 39
28	29 0	5 41	12 48	19 42	26 52	12 10	18 6	17 43
32	2 29 50	4 6 30	5 13 38	6 20 31	7 27 44	9 13 23	11 19 40	1 18 46
36	3 0 39	7 19	14 27	21 19	28 37	14 37	21 14	19 49
40	1 29	8 8	15 17	22 8	7 29 29	15 52	22 47	20 52
44	2 18	8 57	16 7	22 57	8 0 22	17 8	24 20	21 53
48	3 8	9 46	16 56	23 45	1 15	18 24	25 52	22 54
52	3 57	10 36	17 46	24 34	2 9	19 42	27 24	23 55
56	4 47	11 25	18 36	25 23	3 2	21 0	11 28 55	24 55

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 5 36	4 12 14	5 19 25	6 26 11	8 3 56	9 22 18	0 0 26	1 25 55
4	6 25	13 3	20 15	27 0	4 50	23 38	1 56	26 55
8	7 14	13 52	21 4	27 49	5 45	24 58	3 26	27 53
12	8 3	14 42	21 54	28 37	6 40	26 20	4 55	28 52
16	8 52	15 31	22 43	6 29 26	7 35	27 42	6 23	1 29 50
20	9 41	16 20	23 33	7 0 15	8 30	9 29 4	7 50	2 0 48
24	10 30	17 10	24 22	1 4	9 26	10 0 28	9 17	1 45
28	11 19	17 59	25 12	1 52	10 22	1 52	10 43	2 42
32	3 12 8	4 18 48	5 26 1	7 2 41	8 11 18	10 3 17	0 12 8	2 3 38
36	12 56	19 38	26 50	3 30	12 15	4 43	13 32	4 34
40	13 45	20 27	27 40	4 19	13 12	6 10	14 56	5 30
44	14 34	21 17	28 29	5 8	14 10	7 37	16 18	6 25
48	15 23	22 6	5 29 18	5 57	15 8	9 5	17 40	7 20
52	16 11	22 56	6 0 8	6 46	16 7	10 34	19 2	8 15
56	17 0	23 45	0 57	7 35	17 5	12 4	20 22	9 10

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 17 49	4 24 35	6 1 46	7 8 24	8 18 5	10 13 34	0 21 42	2 10 4
4	18 37	25 24	2 35	9 13	19 5	15 5	23 0	10 58
8	19 26	26 14	3 24	10 3	20 5	16 36	24 18	11 51
12	20 15	27 4	4 14	10 52	21 6	18 8	25 36	12 45
16	21 3	27 53	5 3	11 42	22 7	19 40	26 52	13 38
20	21 52	28 43	5 52	12 31	23 8	21 13	28 8	14 31
24	22 41	4 29 33	6 41	13 21	24 11	22 46	0 29 23	15 23
28	23 29	5 0 22	7 30	14 10	25 14	24 20	1 0 37	16 16
32	3 24 18	5 1 12	6 8 19	7 15 0	8 26 17	10 25 54	1 1 50	2 17 8
36	25 7	2 2	9 8	15 50	27 21	27 29	3 2	18 0
40	25 55	2 51	9 57	16 40	28 25	10 29 3	4 14	18 51
44	26 44	3 41	10 46	17 30	8 29 30	11 0 38	5 25	19 43
48	27 33	4 31	11 34	18 21	9 0 36	2 14	6 36	20 34
52	28 22	5 21	12 23	19 11	1 43	3 49	7 45	21 26
56	29 10	6 10	13 12	20 2	2 50	5 25	8 54	22 17
60	3 29 59	5 7 0	6 14 1	7 20 52	9 3 57	11 7 0	1 10 3	2 23 8

PROPORTIONAL PARTS

Var. in 4 mins:	1°–12′	1°–15′	1°–18′	1°–20′	1°–23′	1°–26′	1°–29′	1°–32′	1°–35′
Var. in 3 mins.	54′	56′	58′	1°– 0′	1°– 2′	1°– 4′	1°– 7′	1– 9′	1°–11′
„ „ 2 mins.	36	38	39	40	42	43	45	46	48
„ „ 1 min.	18	19	20	20	21	22	22	23	24

Ascendant for Latitude 37° 0' North

(For all places in or Near 37°N Latitude)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
0	2 23 42	4 0 18	5 7 0	6 13 42	7 20 18	9 3 15	11 7 0	1 10 45
4	24 32	1 6	7 49	14 31	21 9	4 24	8 37	11 52
8	25 22	1 55	8 39	15 19	22 0	5 33	10 14	12 59
12	26 12	2 43	9 28	16 7	22 51	6 43	11 51	14 6
16	27 2	3 32	10 17	16 56	23 42	7 53	13 28	15 11
20	27 52	4 20	11 6	17 44	24 33	9 5	15 5	16 17
24	28 42	5 9	11 56	18 32	25 25	10 17	16 41	17 21
28	2 29 32	5 57	12 45	19 21	26 16	11 30	18 17	18 25
32	3 0 21	4 6 46	5 13 34	6 20 9	7 27 8	9 12 43	11 19 53	1 19 28
36	1 11	7 34	14 23	20 57	28 0	13 58	21 28	20 31
40	2 0	8 23	15 13	21 45	28 53	15 13	23 3	21 33
44	2 49	9 12	16 2	22 34	7 29 45	16 29	24 37	22 35
48	3 38	10 0	16 51	23 22	8 0 38	17 46	26 11	23 36
52	4 27	10 49	17 40	24 10	1 31	19 4	27 44	24 37
56	5 16	11 38	18 29	24 59	2 24	20 22	11 29 17	25 37

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 6 5	4 12 27	5 19 19	6 25 47	8 3 18	9 21 41	0 0 49	1 26 36
4	6 54	13 15	20 8	26 35	4 12	23 2	2 21	27 36
8	7 43	14 4	20 57	27 24	5 6	24 23	3 51	28 34
12	8 31	14 53	21 46	28 12	6 1	25 45	5 21	1 29 33
16	9 20	15 42	22 35	29 0	6 56	27 7	6 50	2 0 30
20	10 9	16 31	23 24	6 29 49	7 51	28 31	8 19	1 28
24	10 57	17 20	24 13	7 0 37	8 46	9 29 55	9 46	2 25
28	11 46	18 9	25 2	1 26	9 42	10 1 20	11 13	3 22
32	3 12 34	4 18 58	5 25 51	7 2 14	8 10 38	10 2 47	0 12 40	2 4 18
36	13 23	19 47	26 40	3 3	11 35	4 14	14 5	5 14
40	14 11	20 36	27 29	3 51	12 32	5 41	15 29	6 9
44	15 0	21 25	28 18	4 40	13 30	7 10	16 53	7 4
48	15 48	22 14	29 7	5 29	14 27	8 39	18 15	7 59
52	16 36	23 3	5 29 56	6 17	15 26	10 9	19 37	8 54
56	17 25	23 52	6 0 45	7 6	16 24	11 39	20 58	9 48

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 18 13	4 24 41	6 1 33	7 7 55	8 17 24	10 13 11	0 22 19	2 10 42
4	19 1	25 31	2 22	8 44	18 23	14 43	23 38	11 36
8	19 50	26 20	3 11	9 33	19 23	16 16	24 56	12 29
12	20 38	27 9	4 0	10 22	20 24	17 49	26 14	13 22
16	21 26	27 58	4 48	11 11	21 25	19 23	27 31	14 15
20	22 15	28 47	5 37	12 0	22 27	20 57	0 28 47	15 7
24	23 3	4 29 37	6 26	12 49	23 29	22 32	1 0 2	16 0
28	23 51	5 0 26	7 14	13 39	24 32	24 7	1 17	16 52
32	3 24 39	5 1 15	6 8 3	7 14 28	8 25 35	10 25 43	1 2 30	2 17 44
36	25 28	2 4	8 51	15 18	26 39	27 19	3 43	18 35
40	26 16	2 54	9 40	16 8	27 43	10 28 55	4 55	19 27
44	27 4	3 43	10 28	16 58	28 49	11 0 32	6 7	20 18
48	27 53	4 32	11 17	17 48	8 29 54	2 9	7 17	21 9
52	28 41	5 21	12 5	18 38	9 1 1	3 46	8 27	22 0
56	3 29 29	6 11	12 54	19 28	2 8	5 23	9 36	22 51
60	4 0 18	5 7 0	6 13 42	7 20 18	9 3 15	11 7 0	1 10 45	2 23 42

PROPORTIONAL PARTS

Var. in 4 mins. :	0° – 48'	0° – 51'	0° – 54'	0° – 57'	1° – 0'	1° – 3'	1° – 6'	1° – 9'	1° – 12'
Var. in 3 mins :	36'	38'	40'	43'	45'	47'	49'	52'	54'
„ „ 2 mins :	24	26	27	29	30	32	33	35	36
„ „ 1 min.	12	13	14	14	15	16	17	17	18

Ascendant for Latitude 38° 0′ North

(For Athens 37° N 54′, Melbourne 37° S 50′, San Francisco 37° N 48′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 24 16	4 0 37	5 7 0	6 13 23	7 19 44	9 2 32	11 7 0	1 11 28
4	25 6	1 25	7 49	14 11	20 34	3 41	8 39	12 36
8	25 56	2 13	8 38	14 59	21 24	4 50	10 18	13 43
12	26 46	3 1	9 27	15 47	22 15	6 0	11 57	14 49
16	27 36	3 49	10 15	16 35	23 6	7 11	13 35	15 55
20	28 25	4 37	11 4	17 23	23 57	8 22	15 14	17 0
24	2 29 15	5 25	11 53	18 11	24 48	9 34	16 52	18 4
28	3 0 4	6 14	12 42	18 59	25 30	10 48	18 29	19 8
32	3 0 53	4 7 2	5 13 31	6 19 47	7 26 31	9 12 1	11 20 7	1 20 12
36	1 42	7 50	14 19	20 35	27 23	13 16	21 44	21 14
40	2 31	8 38	15 8	21 23	28 15	14 32	23 20	22 16
44	3 20	9 26	15 57	22 11	7 29 7	15 48	24 56	23 18
48	4 9	10 15	16 46	22 59	8 0 0	17 6	26 31	24 19
52	4 58	11 3	17 35	23 46	0 53	18 24	28 6	25 20
56	5 46	11 51	18 23	24 34	1 46	19 43	11 29 40	26 19

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 6 35	4 12 40	5 19 12	6 25 22	8 2 39	9 21 3	0 1 13	1 27 19
4	7 24	13 28	20 1	26 10	3 33	22 23	2 46	28 18
8	8 12	14 17	20 49	26 58	4 27	23 45	4 18	1 29 16
12	9 0	15 5	21 38	27 46	5 21	25 8	5 49	2 0 15
16	9 49	15 53	22 27	28 34	6 16	26 31	7 20	1 12
20	10 37	16 42	23 15	6 29 22	7 10	27 56	8 49	2 9
24	11 25	17 30	24 4	7 0 11	8 6	9 29 21	10 18	3 6
28	12 13	18 19	24 53	0 59	9 1	10 0 47	11 46	4 3
32	3 13 1	4 19 7	5 25 41	7 1 47	8 9 57	10 2 14	0 13 13	2 4 59
36	13 49	19 56	26 30	2 35	10 54	3 42	14 39	5 54
40	14 38	20 45	27 18	3 23	11 51	5 11	16 4	6 50
44	15 26	21 33	28 7	4 11	12 48	6 40	17 29	7 44
48	16 14	22 22	28 55	5 0	13 45	8 11	18 52	8 39
52	17 2	23 11	5 29 43	5 48	14 44	9 42	20 15	9 33
56	17 50	23 59	6 0 32	6 36	15 42	11 14	21 37	10 27

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 18 38	4 24 48	6 1 20	7 7 25	8 16 41	10 12 47	0 22 57	2 11 21
4	19 26	25 37	2 9	8 14	17 41	14 20	24 17	12 14
8	20 14	26 25	2 57	9 2	18 40	15 54	25 36	13 7
12	21 1	27 14	3 45	9 51	19 41	17 29	26 54	14 0
16	21 49	28 3	4 34	10 40	20 42	19 4	28 12	14 53
20	22 37	28 52	5 22	11 29	21 44	20 40	0 29 28	15 45
24	23 25	4 29 41	6 10	12 18	22 46	22 16	1 0 44	16 37
28	24 13	5 0 29	6 58	13 7	23 48	23 53	1 59	17 29
32	3 25 1	5 1 18	6 7 46	7 13 56	8 24 52	10 25 31	1 3 12	2 18 21
36	25 49	2 7	8 35	14 45	25 56	27 8	4 26	19 12
40	26 37	2 56	9 23	15 35	27 0	10 28 46	5 38	20 3
44	27 25	3 45	10 11	16 24	28 5	11 0 25	6 49	20 54
48	28 13	4 33	10 59	17 14	8 29 11	2 3	8 0	21 45
52	29 1	5 22	11 47	18 4	9 0 17	3 42	9 10	22 36
56	3 29 49	6 11	12 35	18 54	1 24	5 21	10 19	23 26
60	4 0 37	5 7 0	6 13 23	7 19 44	9 2 32	11 7 0	1 11 28	2 24 16

PROPORTIONAL PARTS

Var. in 4 mins :	1°-15′	1°-18′	1° - 21′	1° - 24′	1° - 27′	1° - 30′	1° - 33′	1° - 36′	1°—39′
Var. in 3 mins.	56′	58′	1°— 1′	1°— 3′	1° - 5′	1 - 7′	1° - 10′	1° - 12′	1°—14′
„ „ 2 mins.	38	39	41	42	44	45	47	48	50
„ „ 1 min.	19	20	20	21	22	23	23	24	25

Ascendant for Latitude 39° 0′ North

(For Lisbon 38° N 44′, Washington D.C. 38° N 55′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 24 52	4 0 56	5 7 0	6 13 4	7 19 8	9 1 47	11 7 0	1 12 13
4	25 41	1 44	7 48	13 52	19 58	2 56	8 41	13 21
8	26 31	2 31	8 37	14 39	20 48	4 5	10 22	14 28
12	27 21	3 19	9 25	15 27	21 39	5 15	12 2	15 34
16	28 10	4 7	10 14	16 14	22 29	6 26	13 43	16 40
20	28 59	4 54	11 2	17 2	23 20	7 38	15 23	17 45
24	2 29 48	5 42	11 50	17 49	24 11	8 50	17 3	18 50
28	3 0 37	6 30	12 39	18 37	25 2	10 3	18 42	19 53
32	3 1 26	4 7 18	5 13 27	6 19 25	7 25 53	9 11 18	11 20 21	1 20 57
36	2 15	8 6	14 15	20 12	26 44	12 33	22 0	21 59
40	3 3	8 53	15 4	21 0	27 36	13 49	23 38	23 1
44	3 52	9 41	15 52	21 47	28 28	15 5	25 16	24 3
48	4 40	10 29	16 40	22 35	7 29 21	16 23	26 52	25 3
52	5 29	11 17	17 29	23 22	8 0 13	17 42	11 28 29	26 4
56	6 17	12 5	18 17	24 10	1 6	19 1	0 0 4	27 3

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 7 5	4 12 53	5 19 5	6 24 57	8 1 59	9 20 22	0 1 39	1 28 3
4	7 54	13 41	19 54	25 45	2 52	21 43	3 13	1 29 2
8	8 42	14 29	20 42	26 33	3 46	23 6	4 47	2 0 0
12	9 30	15 17	21 30	27 20	4 40	24 29	6 19	0 58
16	10 18	16 5	22 18	28 8	5 34	25 53	7 51	1 55
20	11 6	16 53	23 6	28 56	6 29	27 18	9 21	2 52
24	11 53	17 41	23 55	6 29 43	7 24	9 28 45	10 51	3 49
28	12 41	18 29	24 43	7 0 31	8 19	10 0 12	12 20	4 45
32	3 13 29	4 19 17	5 25 31	7 1 19	8 9 15	10 1 40	0 13 48	2 5 41
36	14 17	20 5	26 19	2 7	10 11	3 9	15 15	6 36
40	15 4	20 54	27 7	2 54	11 8	4 39	16 42	7 31
44	15 52	21 42	27 55	3 42	12 5	6 9	18 7	8 26
48	16 40	22 30	28 43	4 30	13 2	7 41	19 31	9 20
52	17 27	23 18	5 29 31	5 18	14 0	9 13	20 54	10 14
56	18 15	24 6	6 0 19	6 6	14 58	10 47	22 17	11 8

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 19 3	4 24 55	6 1 7	7 6 55	8 15 57	10 12 21	0 23 38	2 12 1
4	19 50	25 43	1 55	7 43	16 57	13 56	24 59	12 54
8	20 37	26 31	2 43	8 31	17 56	15 31	26 18	13 47
12	21 25	27 20	3 31	9 20	18 57	17 7	27 37	14 39
16	22 13	28 8	4 19	10 8	19 57	18 44	0 28 55	15 32
20	23 0	28 56	5 7	10 57	20 59	20 22	1 0 11	16 24
24	23 48	4 29 45	5 54	11 45	22 1	22 0	1 27	17 16
28	24 35	5 0 33	6 42	12 34	23 3	23 39	2 42	18 7
32	3 25 23	5 1 21	6 7 30	7 13 23	8 24 7	10 25 18	1 3 57	2 18 58
36	26 11	2 10	8 18	14 12	25 10	26 57	5 10	19 49
40	26 58	2 58	9 6	15 1	26 15	10 28 37	6 22	20 40
44	27 46	3 46	9 53	15 50	27 20	11 0 17	7 34	21 31
48	28 33	4 35	10 41	16 39	28 26	1 58	8 45	22 21
52	3 29 21	5 23	11 29	17 29	8 29 32	3 38	9 55	23 12
56	4 0 8	6 12	12 16	18 18	9 0 39	5 19	11 4	24 2
60	4 0 56	5 7 0	6 13 4	7 19 8	9 1 47	11 7 0	1 12 13	2 24 52

PROPORTIONAL PARTS

Var. in 4 mins. :	0°–48′	0°–51′	0°–54′	0°–57′	1°–0′	1°–3′	1°–6′	1°–9′	1°–12′
Var. in 3 mins.	36′	38′	40′	43′	45′	47′	49′	52′	54′
" " 2 mins.	24	26	27	29	30	32	33	35	36
" " 1 min.	12	13	14	14	15	16	17	17	18

Ascendant for Latitude 40° 0′ North

(For Paking 39°N55′, Philadelphia 39°N57′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	S ° ′	S ° ′	S ° ′	S ° ′	S ° ′	S ° ′	S ° ′	S ° ′
0	2 25 28	4 1 16	5 7 0	6 12 44	7 18 32	9 1 0	11 7 0	1 13 0
4	26 17	2 3	7 48	13 32	19 22	2 9	8 43	14 8
8	27 7	2 50	8 36	14 19	20 12	3 18	10 26	15 15
12	27 56	3 37	9 24	15 6	21 1	4 28	12 8	16 22
16	28 45	4 25	10 12	15 53	21 52	5 39	13 51	17 27
20	2 29 34	5 12	11 0	16 40	22 42	6 51	15 33	18 32
24	3 0 22	5 59	11 48	17 27	23 32	8 4	17 14	19 36
28	1 11	6 47	12 36	18 15	24 23	9 17	18 56	20 40
32	3 2 0	4 7 34	5 13 24	6 19 2	7 25 14	9 10 32	11 20 37	1 21 43
36	2 48	8 21	14 11	19 49	26 5	11 47	22 18	22 46
40	3 36	9 9	14 59	20 36	26 57	13 3	23 57	23 47
44	4 24	9 56	15 47	21 23	27 48	14 21	25 37	24 49
48	5 12	10 44	16 35	22 10	28 40	15 39	27 15	25 49
52	6 0	11 31	17 23	22 58	7 29 33	16 58	11 28 53	26 49
56	6 48	12 19	18 11	23 45	8 0 25	18 18	0 0 30	27 49

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 7 36	4 13 6	5 18 59	6 24 32	8 1 18	9 19 39	0 2 7	1 28 48
4	8 24	13 54	19 46	25 19	2 11	21 1	3 42	1 29 47
8	9 12	14 41	20 34	26 10	3 4	22 24	5 17	2 0 45
12	9 59	15 29	21 22	26 54	3 58	23 48	6 51	1 42
16	10 47	16 16	22 10	27 41	4 52	25 13	8 24	2 39
20	11 35	17 4	22 58	28 28	5 46	26 39	9 56	3 36
24	12 22	17 52	23 45	6 29 16	6 41	28 6	11 27	4 33
28	13 10	18 39	24 33	7 0 3	7 36	9 29 34	12 57	5 28
32	3 13 57	4 19 27	5 25 21	7 0 50	8 8 32	10 1 3	0 14 26	2 6 24
36	14 44	20 15	26 8	1 38	9 27	2 33	15 54	7 19
40	15 32	21 2	26 56	2 25	10 24	4 4	17 21	8 14
44	16 19	21 50	27 44	3 13	11 21	5 36	18 47	9 8
48	17 6	22 38	28 31	4 1	12 18	7 9	20 12	10 3
52	17 54	23 26	5 29 19	4 48	13 15	8 43	21 36	10 58
56	18 41	24 14	6 0 6	5 36	14 13	10 18	22 59	11 49

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 19 28	4 25 1	6 0 54	7 6 24	8 15 12	10 11 53	0 24 21	2 12 42
4	20 15	25 49	1 41	7 12	16 11	13 30	25 42	13 35
8	21 2	26 37	2 29	8 0	17 11	15 7	27 2	14 27
12	21 50	27 25	3 16	8 48	18 11	16 45	28 21	15 20
16	22 37	28 13	4 4	9 36	19 11	18 23	0 29 39	16 12
20	23 24	29 1	4 51	10 24	20 13	20 3	1 0 57	17 3
24	24 11	4 29 49	5 39	11 12	21 14	21 42	2 13	17 55
28	24 58	5 0 36	6 26	12 0	22 17	23 23	3 28	18 46
32	3 25 45	5 1 24	6 7 13	7 12 49	8 23 20	10 25 4	1 4 43	2 19 37
36	26 33	2 12	8 1	13 38	24 24	26 46	5 56	20 28
40	27 20	3 0	8 48	14 25	25 28	10 28 27	7 9	21 18
44	28 7	3 48	9 35	15 15	26 33	11 0 9	8 21	22 8
48	28 54	4 36	10 23	16 4	27 38	1 52	9 32	22 59
52	3 29 41	5 24	11 10	16 53	28 45	3 34	10 42	23 48
56	4 0 28	6 12	11 57	17 43	8 29 52	5 17	11 51	24 38
60	4 1 16	5 7 0	6 12 44	7 18 32	9 1 0	11 7 0	1 13 0	2 25 28

PROPORTIONAL PARTS

Var. in 4 mins.:	1°-15′	1°-19′	1°-22′	1°-26′	1°-29′	1°-33′	1°-36′	1°-40′	1°-43′
Var. in 3 mins.	56′	59′	1°-1′	1°-4′	1°-7′	1°-10′	1°-12′	1°-15′	1°-17′
" " 2 mins.	38	40	41	43	45	47	48	50	52
" " 1 min.	19	20	21	22	22	23	24	25	26

Ascendant for Latitude 41° 0′ North

(For New York 40°N49′, Naples 40°N51′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 26 5	4 1 35	5 7 0	6 12 25	7 17 55	9 0 11	11 7 0	1 13 49
4	26 54	2 22	7 47	13 11	18 44	1 19	8 45	14 57
8	27 43	3 9	8 35	13 58	19 34	2 29	10 30	16 4
12	28 32	3 56	9 22	14 45	20 23	3 39	12 15	17 10
16	2 29 20	4 43	10 10	15 32	21 13	4 50	13 59	18 16
20	3 0 9	5 30	10 57	16 19	22 3	6 2	15 43	19 21
24	0 57	6 17	11 45	17 5	22 53	7 15	17 27	20 25
28	1 45	7 3	12 32	17 52	23 44	8 29	19 11	21 29
32	3 2 34	4 7 50	5 13 20	6 18 39	7 24 34	9 9 44	11 20 54	1 22 31
36	3 22	8 37	14 7	19 26	25 25	10 59	22 36	23 34
40	4 10	9 24	14 55	20 12	26 16	12 16	24 18	24 35
44	4 57	10 11	15 42	20 59	27 7	13 33	25 59	25 36
48	5 45	10 58	16 30	21 46	27 59	14 52	27 40	26 37
52	6 33	11 45	17 17	22 33	28 51	16 12	11 29 19	27 37
56	7 20	12 32	18 4	23 19	7 29 43	17 32	0 0 58	28 36

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 8 8	4 13 20	5 18 52	6 24 6	8 0 36	9 18 54	0 2 36	1 29 35
4	8 55	14 7	19 39	24 53	1 28	20 17	4 13	2 0 33
8	9 43	14 54	20 26	25 40	2 21	21 40	5 49	1 31
12	10 50	15 41	21 13	26 27	3 15	23 5	7 24	2 28
16	11 17	16 28	22 1	27 14	4 8	24 31	8 59	3 25
20	12 4	17 15	22 48	28 1	5 2	25 58	10 32	4 22
24	12 51	18 2	23 36	28 48	5 57	27 26	12 4	5 18
28	13 38	18 50	24 23	6 29 35	6 52	9 28 55	13 35	6 13
32	3 14 25	4 19 37	5 25 10	7 0 22	8 7 47	10 0 25	0 15 5	2 7 8
36	15 12	20 24	25 58	1 9	8 42	1 56	16 34	8 3
40	15 59	21 12	26 45	1 56	9 38	3 28	18 2	8 58
44	16 46	21 59	27 32	2 43	10 35	5 1	19 29	9 52
48	17 33	22 46	28 19	3 30	11 32	6 36	20 55	10 45
52	18 20	23 33	29 6	4 17	12 29	8 11	22 20	11 39
56	19 7	24 21	5 29 53	5 5	13 27	9 47	23 43	12 32

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 19 54	4 25 8	6 0 40	7 5 52	8 14 25	10 11 24	0 25 6	2 13 24
4	20 41	25 56	1 28	6 40	15 24	13 2	26 28	14 17
8	21 27	26 43	2 15	7 27	16 23	14 41	27 48	15 9
12	22 14	27 30	3 2	8 15	17 23	16 20	0 29 8	16 1
16	23 1	28 18	3 49	9 3	18 24	18 1	1 0 27	16 52
20	23 48	29 5	4 36	9 50	19 25	19 42	1 44	17 44
24	24 34	4 29 53	5 23	10 38	20 26	21 24	3 1	18 35
28	25 21	5 0 40	6 10	11 26	21 29	23 6	4 16	19 26
32	3 26 8	5 1 28	6 6 57	7 12 15	8 22 31	10 24 49	1 5 31	2 20 16
36	26 55	2 15	7 43	13 3	23 35	26 33	6 45	21 7
40	27 41	3 3	8 30	13 51	24 39	10 28 17	7 58	21 57
44	28 28	3 50	9 17	14 40	25 44	11 0 1	9 10	22 47
48	3 29 15	4 38	10 4	15 28	26 50	1 45	10 21	23 37
52	4 0 2	5 25	10 51	16 17	27 56	3 30	11 31	24 26
56	0 49	6 12	11 38	17 6	8 29 3	5 15	12 41	25 16
60	4 1 35	5 7 0	6 12 25	7 17 55	9 0 11	11 7 0	1 13 49	2 26 5

PROPORTIONAL PARTS

Var. in 4 mins. :	0°-47′	0°-50′	0°-53′	0°-57′	1°-0′	1°-4′	1°-7′	1°-10′	1°-14′
Var. in 3 mins.	35′	37′	40′	43′	45′	48′	50′	52′	55′
„ „ 2 mins.	24	25	27	29	30	32	34	35	37
„ „ 1 min.	12	13	13	14	15	16	17	18	19

Ascendant for Latitude 42° 0′ North

(For Rome 41°N55′, Chicago 41°N53′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 26 43	4 1 55	5 7 0	6 12 5	7 17 17	8 29 20	11 7 0	1 14 40
4	27 31	2 42	7 47	12 51	18 6	9 0 28	8 47	15 48
8	28 20	3 28	8 34	13 37	18 55	1 38	10 34	16 55
12	29 8	4 15	9 21	14 24	19 44	2 48	12 22	18 1
16	2 29 57	5 1	10 8	15 10	20 34	3 59	14 8	19 7
20	3 0 45	5 48	10 55	15 56	21 23	5 11	15 55	20 12
24	1 33	6 34	11 42	16 43	22 13	6 24	17 41	21 16
28	2 21	7 21	12 29	17 29	23 3	7 38	19 27	22 19
32	3 3 8	4 8 7	5 13 16	6 18 15	7 23 53	9 8 53	11 21 12	1 23 22
36	3 56	8 54	14 3	19 2	24 44	10 9	22 56	24 24
40	4 44	9 40	14 50	19 48	25 34	11 26	24 40	25 25
44	5 31	10 27	15 37	20 35	26 25	12 44	26 23	26 26
48	6 18	11 13	16 24	21 21	27 17	14 3	28 6	27 26
52	7 6	12 0	17 11	22 7	28 8	15 23	11 29 47	28 26
56	7 53	12 46	17 58	22 54	29 0	16 44	0 1 28	1 29 25

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 8 40	4 13 33	5 18 45	6 23 40	7 29 52	9 18 6	0 3 [illegible]	2 0 23
4	9 27	14 20	19 32	24 27	8 0 44	19 29	4 46	1 21
8	10 14	15 7	20 19	25 13	1 37	20 54	6 24	2 19
12	11 1	15 53	21 6	25 59	2 30	22 19	8 0	3 16
16	11 48	16 40	21 53	26 46	3 24	23 46	9 36	4 12
20	12 34	17 27	22 39	27 32	4 17	25 14	11 10	5 9
24	13 21	18 13	23 26	28 19	5 11	26 43	12 44	6 4
28	14 8	19 0	24 13	29 6	6 6	28 13	14 16	6 59
32	3 14 54	4 19 47	5 25 0	6 29 52	8 7 1	9 29 44	0 15 47	2 7 54
36	15 41	20 34	25 47	7 0 39	7 56	10 1 16	17 17	8 49
40	16 28	21 21	26 33	1 26	8 51	2 50	18 46	9 43
44	17 14	22 8	27 20	2 12	9 48	4 24	20 14	10 36
48	18 1	22 54	28 7	2 59	10 44	6 0	21 41	11 30
52	18 47	23 41	28 53	3 46	11 41	7 36	23 6	12 23
56	19 33	24 28	5 29 40	4 33	12 39	9 14	24 31	13 16

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 20 20	4 25 15	6 0 27	7 5 20	8 13 37	10 10 53	0 25 54	2 14 8
4	21 6	26 2	1 14	6 7	14 35	12 32	27 16	15 0
8	21 53	26 49	2 0	6 54	15 34	14 13	28 37	15 52
12	22 39	27 36	2 47	7 42	16 34	15 54	0 29 57	16 43
16	23 25	28 23	3 33	8 29	17 34	17 37	1 1 16	17 35
20	24 12	29 10	4 20	9 16	18 35	19 20	2 34	18 26
24	24 58	4 29 57	5 6	10 4	19 36	21 4	3 51	19 16
28	25 45	5 0 44	5 53	10 52	20 38	22 48	5 7	20 7
32	3 26 31	5 1 31	6 6 39	7 11 39	8 21 41	10 24 33	1 6 22	2 20 57
36	27 17	2 18	7 26	12 27	22 44	26 19	7 36	21 47
40	28 4	3 5	8 12	13 15	23 48	28 5	8 49	22 37
44	28 50	3 52	8 59	14 3	24 53	10 29 52	10 1	23 26
48	3 29 36	4 39	9 45	14 52	25 59	11 1 38	11 12	24 16
52	4 0 23	5 26	10 32	15 40	27 5	3 26	12 22	25 5
56	1 9	6 13	11 18	16 29	28 12	5 13	13 32	25 54
60	4 1 55	5 7 0	6 12 5	7 17 17	8 29 20	11 7 0	1 14 40	2 26 43

PROPORTIONAL PARTS

Var. in 4 mins.:	1°-17′	1°-21′	1°-25′	1°-28′	1°-32′	1°-36′	1°-40′	1°-43′	1°-47′
Var. in 3 mins.	58′	1°-1′	1°-4′	1°-6′	1°-9′	1°-12′	1°-15′	1°-17′	1°-20′
,, ,, 2 mins.	39	41	43	44	46	48	50	52	54
,, ,, 1 min.	19	20	21	22	23	24	25	26	27

Ascendant for Latitude 43° 0′ North

(For Sofia 42° N 40′, etc.)

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 27 22	4 2 16	5 7 0	6 11 44	7 16 38	8 28 16	11 7 0	1 15 34
4	28 10	3 2	7 47	12 30	17 27	8 29 35	8 50	16 42
8	28 58	3 48	8 33	13 16	18 15	9 0 44	10 40	17 49
12	2 29 46	4 34	9 20	14 2	19 4	1 54	12 29	18 55
16	3 0 34	5 20	10 6	14 48	19 53	3 6	14 18	20 0
20	1 22	6 6	10 53	15 34	20 43	4 18	16 7	21 4
24	2 9	6 52	11 39	16 20	21 32	5 31	17 56	22 8
28	2 57	7 38	12 26	17 6	22 22	6 45	19 44	23 11
32	3 3 44	4 8 24	5 13 12	6 17 52	7 23 11	9 8 0	11 21 31	1 24 14
36	4 31	9 10	13 59	18 38	24 1	9 16	23 18	25 16
40	5 18	9 56	14 45	19 24	24 52	10 33	25 4	26 17
44	6 5	10 42	15 32	20 10	25 42	11 51	26 49	27 17
48	6 52	11 28	16 18	20 55	26 33	13 11	11 28 33	28 17
52	7 39	12 15	17 5	21 41	27 24	14 31	0 0 17	1 29 16
56	8 26	13 1	17 51	22 27	28 16	15 53	1 59	2 0 15

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 9 13	4 13 47	5 18 38	6 23 13	7 29 7	9 17 16	0 3 41	2 1 13
4	9 50	14 33	19 24	23 59	7 29 59	18 39	5 21	2 11
8	10 46	15 19	20 11	24 45	8 0 52	20 4	7 0	3 8
12	11 32	16 6	20 57	25 32	1 44	21 31	8 39	4 5
16	12 19	16 52	21 44	26 18	2 37	22 58	10 16	5 1
20	13 5	17 38	22 30	27 4	3 31	24 27	11 52	5 57
24	13 51	18 25	23 16	27 50	4 24	25 57	13 26	6 52
28	14 38	19 11	24 3	28 36	5 18	27 28	15 0	7 47
32	3 15 24	4 19 57	5 24 49	6 29 22	8 6 13	9 29 0	0 16 32	2 8 42
36	16 10	20 43	25 35	7 0 9	7 8	10 0 34	18 3	9 36
40	16 56	21 30	26 22	0 55	8 3	2 8	19 33	10 29
44	17 42	22 16	27 8	1 41	8 59	3 44	21 2	11 23
48	18 28	23 3	27 54	2 28	9 55	5 21	22 29	12 16
52	19 15	23 49	28 41	3 14	10 52	7 0	23 56	13 8
56	20 1	24 36	5 29 27	4 1	11 49	8 39	25 21	14 1

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 20 47	4 25 22	6 0 13	7 4 47	8 12 47	10 10 19	0 26 44	2 14 53
4	21 33	26 9	0 59	5 34	13 45	12 1	28 7	15 44
8	22 19	26 55	1 45	6 21	14 44	13 43	0 29 29	16 36
12	23 5	27 42	2 32	7 8	15 43	15 27	1 0 49	17 27
16	23 50	28 28	3 18	7 55	16 43	17 11	2 9	18 18
20	24 36	4 29 14	4 4	8 42	17 43	18 56	3 27	19 8
24	25 22	5 0 1	4 50	9 29	18 44	20 42	4 44	19 59
28	26 8	0 48	5 36	10 16	19 46	22 29	6 0	20 49
32	3 26 54	5 1 34	6 6 22	7 11 3	8 20 49	10 24 16	1 7 15	2 21 38
36	27 40	2 21	7 8	11 51	21 52	26 4	8 29	22 28
40	28 26	3 7	7 54	12 38	22 56	27 53	9 42	23 18
44	29 12	3 54	8 40	13 26	24 0	10 29 42	10 54	24 7
48	3 29 58	4 40	9 26	14 14	25 5	11 1 31	12 6	24 56
52	4 0 44	5 27	10 12	15 2	26 11	3 20	13 16	25 45
56	1 30	6 13	10 58	15 50	27 18	5 10	14 25	26 33
60	4 2 16	5 7 0	6 11 44	7 16 38	8 28 26	11 7 0	1 15 34	2 27 22

PROPORTIONAL PARTS

Var. in 4 mins.:	0°–46′	0°–49′	0°–52′	0°–56′	1°–0′	1°–4′	1°–8′	1°–12′	1°–15′
Var. in 3 mins.	34′	37	39′	42′	45′	48′	51′	54′	57′
" " 2 mins.	23	25	26	28	30	32	34	36	38
" " 1 min.	12	12	13	14	15	16	17	18	19

Ascendant for Latitude 44° 0′ North

(For Toronto 43°N39′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 28 1	4 2 36	5 7 0	6 11 24	7 15 59	8 27 30	11 7 0	1 16 30
4	28 49	3 22	7 46	12 9	16 47	28 39	8 53	17 37
8	2 29 37	4 8	8 32	12 55	17 35	8 29 48	10 45	18 44
12	3 0 24	4 53	9 18	13 40	18 23	9 0 58	12 37	19 50
16	1 12	5 39	10 4	14 26	19 12	2 9	14 29	20 55
20	1 59	6 21	10 50	15 11	20 1	3 21	16 21	21 59
24	2 46	7 10	11 37	15 57	20 50	4 35	18 12	23 3
28	3 33	7 55	12 23	16 42	21 39	5 49	20 2	24 6
32	3 4 20	4 8 41	5 13 9	6 17 28	7 22 28	9 7 4	11 21 52	1 25 8
36	5 7	9 27	13 55	18 13	23 18	8 20	23 41	26 9
40	5 54	10 12	14 41	18 59	24 8	9 38	25 29	27 10
44	6 41	10 58	15 27	19 44	24 58	10 56	27 17	28 11
48	7 27	11 44	16 13	20 30	25 48	12 16	11 29 4	1 29 10
52	8 14	12 29	16 59	21 15	26 39	13 37	0 0 49	2 0 9
56	9 0	13 15	17 45	22 1	27 30	14 59	2 33	1 7
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 9 46	4 14 1	5 18 31	6 22 46	7 28 21	9 16 22	0 4 17	2 2 5
4	10 32	14 47	19 17	23 32	7 29 13	17 46	5 59	3 3
8	11 18	15 32	20 3	24 18	8 0 5	19 12	7 40	3 59
12	12 4	16 18	20 49	25 3	0 57	20 39	9 20	4 56
16	12 50	17 4	21 35	25 49	1 50	22 7	10 58	5 52
20	13 36	17 50	22 21	26 35	2 43	23 37	12 36	6 47
24	14 22	18 36	23 7	27 20	3 36	25 8	14 12	7 42
28	15 8	19 22	23 53	28 6	4 29	26 40	15 47	8 36
32	3 15 54	4 20 8	5 24 39	6 28 52	8 5 24	9 28 13	0 17 20	2 9 31
36	16 40	20 53	25 24	6 29 38	6 18	9 29 48	18 52	10 24
40	17 25	21 39	26 10	7 0 24	7 13	10 1 24	20 23	11 17
44	18 11	22 25	26 56	1 10	8 8	3 2	21 58	12 10
48	18 57	23 11	27 42	1 56	9 4	4 40	23 21	13 3
52	19 42	23 57	28 28	2 42	10 1	6 20	24 48	13 55
56	20 28	24 43	29 13	3 28	10 57	8 1	26 14	14 47
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 21 14	4 25 29	5 29 53	7 4 14	8 11 55	10 9 43	0 27 38	2 15 39
4	21 59	26 15	6 0 45	5 0	12 53	11 27	0 29 1	16 30
8	22 45	27 1	1 31	5 47	13 51	13 11	1 0 23	17 21
12	23 30	27 47	2 16	6 33	14 50	14 56	1 44	18 12
16	24 16	28 33	3 2	7 19	15 49	16 43	3 4	19 2
20	25 1	4 29 19	3 48	8 6	16 50	18 31	4 22	19 52
24	25 47	5 0 5	4 33	8 53	17 51	20 19	5 40	20 42
28	26 32	0 51	5 19	9 40	18 52	22 8	6 56	21 32
32	3 27 18	5 1 37	6 6 5	7 10 27	8 19 54	10 23 56	1 8 11	2 22 21
36	28 3	2 23	6 50	11 14	20 57	25 48	9 25	23 10
40	28 49	3 10	7 36	12 1	22 1	27 39	10 39	23 59
44	3 29 34	3 56	8 21	12 48	23 5	10 29 31	11 51	24 48
48	4 0 20	4 42	9 7	13 36	24 10	11 1 23	13 2	25 37
52	1 5	5 28	9 52	14 23	25 16	3 15	14 12	26 25
56	1 51	6 14	10 38	15 11	26 23	5 8	15 21	27 13
60	4 2 36	5 7 0	6 11 24	7 15 59	8 27 30	11 7 0	1 16 30	2 28 1

PROPORTIONAL PARTS

Var. in 4 mins:	1°–18′	1°–22′	1°–27′	1°–31′	1°–36′	1°–40′	1°–44′	1°–48′	1°–52′
Var. in 3 mins.	58′	1°– 1	1°– 5	1°– 8′	1°–12′	1°–15′	1°–18′	1–21′	1°–24′
" " 2 mins.	39	41	44	46	48	50	52	54	56
" " 1 min	20	21	22	23	24	25	26	27	28

Ascendant for Latitude 45° 0′ North

(For Belgrade 44°N50′ Ottawa 45°N24′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 28 42	4 2 57	5 7 0	6 11 3	7 15 18	8 26 32	11 7 0	1 17 28
4	2 29 29	3 43	7 46	11 48	16 6	27 40	8 55	18 36
8	3 0 17	4 28	8 31	12 33	16 53	28 49	10 51	19 42
12	1 4	5 13	9 17	13 18	17 41	8 29 59	12 46	20 48
16	1 51	5 58	10 2	14 3	18 30	9 1 10	14 41	21 53
20	2 38	6 43	10 48	14 48	19 18	2 22	16 35	22 57
24	3 24	7 28	11 34	15 33	20 6	3 35	18 29	24 0
28	4 11	8 13	12 19	16 18	20 55	4 50	20 22	25 3
32	3 4 58	4 8 58	5 13 5	6 17 3	7 21 44	9 6 5	11 22 15	1 26 4
36	5 44	9 44	13 50	17 48	22 33	7 21	24 6	27 6
40	6 30	10 29	14 36	18 33	23 23	8 39	25 58	28 6
44	7 16	11 14	15 22	19 18	24 12	9 58	27 47	1 29 6
48	8 2	11 59	16 7	20 3	25 2	11 18	11 29 36	2 0 5
52	8 48	12 45	16 53	20 48	25 53	12 39	0 1 24	1 4
56	9 34	13 30	17 38	21 34	26 43	14 1	3 10	2 2
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 10 20	4 14 15	5 18 24	6 22 19	7 27 34	9 15 25	0 4 56	2 2 59
4	11 6	15 0	19 9	23 4	28 25	16 50	6 40	3 56
8	11 52	15 46	19 55	23 49	7 29 16	18 16	8 23	4 52
12	12 37	16 31	20 40	24 34	8 0 8	19 44	10 4	5 48
16	13 23	17 16	21 26	25 20	1 0	21 13	11 44	6 44
20	14 8	18 2	22 11	26 5	1 53	22 44	13 23	7 39
24	14 53	18 47	22 57	26 50	2 46	24 16	15 1	8 33
28	15 39	19 33	23 42	27 35	3 39	25 49	16 37	9 27
32	3 16 25	4 20 18	5 24 27	6 28 21	8 4 33	9 27 23	0 18 11	2 10 21
36	17 10	21 3	25 13	29 6	5 27	9 28 59	19 44	11 14
40	17 55	21 49	25 58	6 29 52	6 21	10 0 37	21 16	12 7
44	18 40	22 34	26 44	7 0 37	7 16	2 15	22 47	13 0
48	19 26	23 20	27 29	1 23	8 12	3 56	24 16	13 52
52	20 11	24 5	28 14	2 8	9 7	5 37	25 44	14 43
56	20 56	24 51	29 0	2 54	10 4	7 20	27 10	15 35
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 21 41	4 25 36	5 29 45	7 3 40	8 11 1	10 9 4	0 28 35	2 16 26
4	22 26	26 22	6 0 30	4 26	11 58	10 50	0 29 59	17 17
8	23 11	27 7	1 15	5 12	12 56	12 36	1 1 21	18 7
12	23 57	27 53	2 1	5 58	13 55	14 24	2 42	18 58
16	24 42	28 38	2 46	6 44	14 54	16 13	4 2	19 48
20	25 27	4 29 24	3 31	7 30	15 54	18 2	5 21	20 37
24	26 12	5 0 10	4 16	8 16	16 54	19 54	6 39	21 27
28	26 57	0 55	5 2	9 2	17 56	21 45	7 57	22 16
32	3 27 42	5 1 41	6 5 47	7 9 49	8 18 57	10 23 38	1 9 10	2 23 5
36	28 27	2 26	6 32	10 36	20 0	25 31	10 25	23 54
40	29 12	3 12	7 17	11 22	21 3	27 25	11 38	24 42
44	3 29 57	3 58	8 2	12 9	22 7	10 29 19	12 50	25 30
48	4 0 42	4 43	8 47	12 56	23 12	11 1 14	14 1	26 19
52	1 27	5 29	9 32	13 43	24 18	3 9	15 11	27 7
56	2 12	6 14	10 17	14 31	25 24	5 5	16 20	27 54
60	4 2 57	5 7 0	6 11 3	7 15 18	8 26 32	11 7 0	1 17 28	2 28 42

PROPORTIONAL PARTS

Var. in 4 mins.:	0° – 44′	0° – 47′	0° – 50′	0° – 54′	0° – 58′	1° – 2′	1° – 6′	1° – 11′	1° – 15′
Var. in 3 mins :	33′	35′	37′	40′	43′	46′	49′	53′	56′
„ „ 2 mins :	22	24	25	27	29	31	33	36	38
„ „ 1 min,	11	12	13	14	15	16	17	18	19

Ascendant for Latitude 46° 0′ North

(For Geneva 46° N 12′, etc.)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	2 29 24	4 3 19	5 7 0	6 10 41	7 14 36	8 25 30	11 7 0	1 18 30
4	3 0 11	4 3	7 45	11 26	15 23	26 38	8 59	19 37
8	0 58	4 48	8 30	12 10	16 11	27 47	10 57	20 43
12	1 44	5 33	9 15	12 55	16 58	8 28 57	12 56	21 48
16	2 31	6 17	10 0	13 40	17 46	9 0 8	14 54	22 53
20	3 17	7 2	10 46	14 24	18 34	1 20	16 51	23 57
24	4 3	7 47	11 31	15 9	19 22	2 33	18 48	25 0
28	4 50	8 31	12 16	15 53	20 10	3 47	20 44	26 2
32	3 5 36	4 9 16	5 13 1	6 16 38	7 20 59	9 5 3	11 22 40	1 27 3
36	6 22	10 1	13 46	17 23	21 47	6 19	24 34	28 4
40	7 7	10 46	14 31	18 7	22 36	7 37	26 28	1 29 4
44	7 53	11 30	15 16	18 52	23 25	8 56	11 28 20	2 0 4
48	8 39	12 15	16 1	19 37	24 15	10 16	0 0 12	1 2
52	9 24	13 0	16 46	20 21	25 5	11 38	2 2	2 1
56	10 10	13 45	17 31	21 6	25 55	13 0	3 50	2 58

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 10 55	4 14 30	5 18 16	6 21 51	7 26 45	9 14 24	0 5 38	2 3 55
4	11 40	15 14	19 1	22 35	27 36	15 50	7 24	4 52
8	12 26	15 59	19 47	23 20	28 27	17 17	9 9	5 48
12	13 11	16 44	20 32	24 5	7 29 18	18 45	10 52	6 43
16	13 56	17 29	21 17	24 50	8 0 10	20 15	12 34	7 38
20	14 41	18 14	22 2	25 34	1 2	21 47	14 14	8 32
24	15 26	18 59	22 46	26 19	1 54	23 19	15 53	9 26
28	16 11	19 44	23 31	27 4	2 47	24 54	17 30	10 20
32	3 16 56	4 20 29	5 24 16	6 27 49	8 3 40	9 26 30	0 19 6	2 11 13
36	17 41	21 14	25 1	28 34	4 34	28 7	20 41	12 6
40	18 26	21 58	25 46	6 29 19	5 28	9 29 46	22 13	12 58
44	19 10	22 43	26 31	7 0 4	6 22	10 1 36	23 45	13 50
48	19 55	23 28	27 16	0 49	7 17	3 8	25 15	14 42
52	20 40	24 13	28 1	1 34	8 12	4 51	26 43	15 33
56	21 25	24 59	28 46	2 20	9 8	6 36	28 10	16 24

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 22 9	4 25 44	5 29 30	7 3 5	8 10 5	10 8 22	0 29 36	2 17 15
4	22 54	26 29	6 0 15	3 50	11 2	10 10	1 1 0	18 5
8	23 39	27 14	1 0	4 36	11 59	11 58	2 22	18 55
12	24 23	27 59	1 45	5 21	12 58	13 48	3 44	19 45
16	25 8	28 44	2 30	6 7	13 56	15 40	5 4	20 35
20	25 53	4 29 29	3 14	6 53	14 56	17 32	6 23	21 24
24	26 37	5 0 14	3 59	7 38	15 56	19 26	7 41	22 13
28	27 22	0 59	4 44	8 24	16 57	21 20	8 57	23 1
32	3 28 7	5 1 41	6 5 29	7 9 10	8 17 58	10 23 16	1 10 13	2 23 50
36	28 51	2 29	6 13	9 57	19 0	25 12	11 27	24 38
40	3 29 36	3 14	6 58	10 43	20 3	27 9	12 40	25 26
44	4 0 20	4 0	7 43	11 29	21 7	10 29 6	13 52	26 14
48	1 5	4 45	8 27	12 16	22 12	11 1 4	15 3	27 2
52	1 50	5 30	9 12	13 2	23 17	3 3	16 13	27 49
56	2 34	6 15	9 57	13 49	24 23	5 1	17 22	28 37
60	4 3 19	5 7 0	6 10 41	7 14 36	8 25 30	11 7 0	1 18 30	2 29 24

PROPORTIONAL PARTS

Var. in 4 mins.:	1°-20′	1°-24′	1°-29′	1°-34′	1°-39′	1°-44′	1°-49′	1°-54′	1°-58′
Var. in 3 mins.	1°-0′	1°-3′	1°-7′	1°-10′	1°-14′	1°-18′	1°-22′	1°-25′	1°-28′
,, ,, 2 mins.	40	42	45	47	50	52	55	57	[illegible]
,, ,, 1 min.	20	21	22	24	25	26	27	29	30

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Ascendant for Latitude 47° 0′ North

(For Quebec 46° N 48′, Berne 46° N 55′ etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 0 7	4 3 41	5 7 0	6 10 19	7 13 53	8 24 26	11 7 0	1 19 34
4	0 53	4 25	7 45	11 4	14 40	25 33	9 2	20 41
8	1 30	5 9	8 29	11 48	15 27	26 42	11 5	21 47
12	2 26	5 53	9 14	12 32	16 14	27 52	13 6	22 52
16	3 12	6 37	9 59	13 16	17 1	8 29 3	15 8	23 56
20	3 58	7 21	10 43	14 0	17 48	9 0 14	17 9	24 59
24	4 43	8 6	11 28	14 44	18 36	1 27	19 9	26 2
28	5 29	8 50	12 12	15 28	19 24	2 41	21 8	27 4
32	3 6 15	4 9 34	5 12 57	6 16 13	7 20 12	9 3 57	11 23 6	1 28 5
36	7 0	10 18	13 42	16 57	21 0	5 13	25 4	1 29 5
40	7 45	11 3	14 26	17 41	21 48	6 31	27 1	2 0 5
44	8 31	11 47	15 11	18 25	22 37	7 50	11 28 56	1 4
48	9 16	12 31	15 55	19 9	23 26	9 11	0 0 50	2 2
52	10 1	13 15	16 40	19 53	24 15	10 32	2 43	3 0
56	10 46	14 0	17 25	20 38	25 5	11 55	4 34	3 57

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 11 31	4 14 44	5 18 9	6 21 22	7 25 55	9 13 20	0 6 24	2 4 53
4	12 16	15 28	18 54	22 6	26 45	14 46	8 12	5 49
8	13 0	16 13	19 38	22 50	27 35	16 14	9 59	6 45
12	13 45	16 57	20 23	23 35	28 26	17 43	11 44	7 40
16	14 30	17 41	21 7	24 19	7 29 17	19 13	13 27	8 34
20	15 14	18 26	21 52	25 3	8 0 9	20 46	15 9	9 28
24	15 59	19 10	22 36	25 48	1 1	22 19	16 50	10 21
28	16 43	19 55	23 21	26 32	1 53	23 55	18 28	11 15
32	3 17 28	4 20 39	5 24 5	6 27 17	8 2 45	9 25 32	0 20 5	2 12 7
36	18 12	21 24	24 50	28 1	3 39	27 10	21 41	12 59
40	18 57	22 8	25 34	28 46	4 32	9 28 51	23 14	13 51
44	19 41	22 53	26 18	6 29 23	5 26	10 0 33	24 47	14 43
48	20 25	23 37	27 3	7 0 15	6 20	2 16	26 17	15 34
52	21 10	24 22	27 47	1 0	7 15	4 1	27 46	16 25
56	21 54	25 6	28 32	1 44	8 11	5 48	0 29 14	17 15

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 22 38	4 25 51	5 29 16	7 2 29	8 9 7	10 7 36	1 0 40	2 18 5
4	23 22	26 35	6 0 0	3 14	10 3	9 26	2 5	18 55
8	24 7	27 20	0 45	3 59	11 0	11 16	3 28	19 45
12	24 51	28 5	1 29	4 44	11 58	13 10	4 49	20 34
16	25 35	28 49	2 13	5 29	12 56	15 4	6 10	21 23
20	26 19	4 29 34	2 57	6 15	13 55	16 59	7 29	22 12
24	27 3	5 0 18	3 42	7 0	14 55	18 56	8 47	23 0
28	27 47	1 3	4 26	7 45	15 55	20 53	10 3	23 48
32	3 28 32	5 1 48	6 5 10	7 8 31	8 16 56	10 22 52	1 11 19	2 24 36
36	3 29 16	2 32	5 54	9 17	17 58	24 51	12 33	25 24
40	4 0 0	3 17	6 39	10 2	19 1	26 51	13 46	26 12
44	0 44	4 1	7 23	10 48	20 4	10 28 52	14 57	26 59
48	1 23	4 46	8 7	11 34	21 8	11 0 54	16 8	27 46
52	2 12	5 31	8 51	12 21	22 13	2 55	17 18	28 33
56	2 56	6 15	9 35	13 7	23 19	4 58	18 27	2 29 20
60	4 3 41	5 7 0	6 10 19	7 13 53	8 24 26	11 7 0	1 19 34	3 0 7

PROPORTIONAL PARTS

Var. in 4 mins. :	0°–43′	0°–46′	0°–49′	0°–53′	0°–58′	1°–2′	1°–7′	1°–11′	1°–16′
Var. in 3 mins.	32′	34′	36′	40′	43′	46′	50′	53′	57′
" " 2 mins.	22	23	25	27	29	31	34	36	38
" " 1 min.	11	12	12	13	15	16	17	18	19

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Ascendant for Latitude 48° 0′ North

(For Munich 48°N08′, Vienna 48°N12′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 0 51	4 4 3	5 7 0	6 9 57	7 13 9	8 23 18	11 7 0	1 20 42
4	1 37	4 46	7 44	10 41	13 56	24 25	9 6	21 49
8	2 22	5 30	8 28	11 25	14 42	25 34	11 12	22 54
12	3 8	6 14	9 12	12 8	15 28	26 43	13 18	23 58
16	3 54	6 57	9 57	12 52	16 15	27 53	15 23	25 2
20	4 39	7 41	10 41	13 36	17 2	8 29 5	17 28	26 5
24	5 24	8 25	11 25	14 19	17 49	9 0 18	19 32	27 7
28	6 9	9 9	12 9	15 3	18 36	1 32	21 35	28 8
32	3 6 55	4 9 52	5 12 53	6 15 47	7 19 23	9 2 47	11 23 37	1 29 9
36	7 40	10 36	13 37	16 30	20 11	4 3	25 37	2 0 9
40	8 24	11 20	14 21	17 14	20 59	5 21	27 37	1 8
44	9 9	12 4	15 5	17 58	21 47	6 40	11 29 35	2 6
48	9 54	12 47	15 49	18 41	22 36	8 1	0 1 32	3 4
52	10 38	13 31	16 34	19 25	23 24	9 23	3 28	4 1
56	11 23	14 15	17 18	20 9	24 13	10 46	5 22	4 58

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 12 7	4 14 59	5 18 2	6 20 53	7 25 3	9 12 11	0 7 14	2 5 54
4	12 51	15 43	18 46	21 36	25 52	13 38	9 4	6 49
8	13 36	16 27	19 30	22 20	26 42	15 6	10 53	7 44
12	14 20	17 11	20 14	23 4	27 32	16 35	12 40	8 38
16	15 4	17 54	20 58	23 48	28 23	18 7	14 25	9 32
20	15 49	18 38	21 42	24 32	7 29 14	19 40	16 9	10 25
24	16 33	19 22	22 26	25 16	8 0 5	21 15	17 51	11 18
28	17 17	20 6	23 10	25 59	0 57	22 51	19 31	12 11
32	3 18 1	4 20 50	5 23 54	6 26 43	8 1 49	9 24 29	0 21 9	2 13 3
36	18 44	21 34	24 38	27 27	2 42	26 9	22 45	13 55
40	19 28	22 18	25 22	28 11	3 34	27 51	24 21	14 46
44	20 12	23 2	26 6	28 56	4 28	9 29 35	25 53	15 37
48	20 56	23 46	26 49	6 29 40	5 22	10 1 20	27 25	16 28
53	21 40	24 30	27 33	7 0 24	6 16	3 7	0 28 54	17 18
56	22 24	25 14	5 28 17	1 8	7 11	4 56	1 0 22	18 8

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 23 7	4 25 58	5 29 1	7 1 53	8 8 6	10 6 46	1 1 49	2 18 57
4	23 51	26 42	5 29 45	2 37	9 2	8 38	3 14	19 47
8	24 35	27 26	6 0 29	3 22	9 59	10 32	4 37	20 36
12	25 19	28 11	1 13	4 6	10 56	12 27	5 59	21 24
16	26 2	28 55	1 56	4 51	11 54	14 25	7 20	22 13
20	26 46	4 29 39	2 40	5 36	12 52	16 23	8 39	23 1
24	27 30	5 0 23	3 24	6 20	13 51	18 23	9 57	23 49
28	28 13	1 7	4 8	7 5	14 51	20 23	11 13	24 37
32	3 28 57	5 1 51	6 4 51	7 7 51	8 15 52	10 22 25	1 12 28	2 25 24
36	3 29 41	2 35	5 35	8 36	16 53	24 28	13 42	26 11
40	4 0 24	3 19	6 19	9 21	17 55	26 33	14 55	26 58
44	1 8	4 4	7 3	10 6	18 58	10 28 37	16 7	27 45
46	1 52	4 48	7 46	10 52	20 1	11 0 42	17 17	28 32
52	2 35	5 32	8 30	11 38	21 6	2 48	18 26	2 29 18
56	3 19	6 16	9 14	12 23	22 11	4 54	19 35	3 0 4
60	4 4 3	5 7 0	6 9 57	7 13 9	8 23 18	11 7 0	1 20 42	3 0 51

PROPORTIONAL PARTS

Var. in 4 mins.:	1°-21′	1°-26′	1°-32′	1°-37′	1°-43′	1° 48′	1°-54′	2°- 0′	2°- 6′
Var. in 3 mins.	1°-1′	1°-4′	1°-9′	1°-13′	1°-17′	1°-21′	1°-25′	1°-30′	1°-34′
" " 2 mins.	41	43	46	49	52	54	57	1°- 0	1- 3
" " 1 min.	20	22	23	24	26	27	29	30	32

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Ascendant for Latitude 49° 0′ North

(For Paris 48° N 50′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 1 36	4 4 25	5 7 0	6 9 35	7 12 24	8 22 7	11 7 0	1 21 53
4	2 21	5 8	7 44	10 18	13 10	23 14	9 10	22 59
8	3 7	5 52	8 27	11 1	13 56	24 21	11 21	24 4
12	3 52	6 35	9 11	11 44	14 41	25 30	13 31	25 8
16	4 37	7 18	9 54	12 28	15 27	26 41	15 40	26 11
20	5 22	8 1	10 38	13 11	16 14	27 52	17 49	27 14
24	6 6	8 44	11 22	13 54	17 0	8 29 4	19 57	28 15
28	6 51	9 28	12 5	14 37	17 47	9 0 18	22 4	29 16
32	3 7 36	4 10 11	5 12 49	6 15 20	7 18 34	9 1 33	11 24 10	2 0 16
36	8 20	10 54	13 33	16 3	19 21	2 49	26 14	1 15
40	9 4	11 37	14 16	16 47	20 8	4 7	11 28 17	2 14
44	9 49	12 21	15 0	17 30	20 56	5 26	0 0 19	3 11
48	10 33	13 4	15 43	18 13	21 44	6 46	2 19	4 8
52	11 17	13 47	16 27	18 56	22 32	8 9	4 17	5 5
56	12 1	14 31	17 10	19 39	23 20	9 32	6 14	6 1
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 12 45	4 15 14	5 17 54	6 20 23	7 24 9	9 10 57	0 8 9	2 6 56
4	13 29	15 57	18 38	21 6	24 58	12 24	10 1	7 51
8	14 12	16 41	19 21	21 49	25 47	13 53	11 51	8 45
12	14 56	17 24	20 5	22 33	26 37	15 23	13 41	9 39
16	15 40	18 8	20 48	23 16	27 27	16 55	15 29	10 32
20	16 23	18 51	21 32	23 59	28 17	18 29	17 14	11 25
24	17 7	19 34	22 15	24 43	29 8	20 5	18 57	12 18
28	17 50	20 18	22 53	25 26	29 59	21 42	20 38	13 10
32	3 18 34	4 21 1	5 23 42	6 26 10	8 0 50	9 23 21	0 22 18	2 14 1
36	19 17	21 45	24 26	26 53	1 42	25 3	23 55	14 52
40	20 1	22 28	25 9	27 37	2 35	26 46	25 31	15 43
44	20 44	23 12	25 52	28 20	3 28	9 28 31	27 5	16 33
48	21 27	23 55	26 36	29 4	4 21	10 0 19	0 28 37	17 23
52	22 11	24 39	27 19	6 29 48	5 15	2 8	1 0 7	18 13
56	22 54	25 22	28 2	7 0 31	6 9	3 59	1 36	19 2
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 23 37	4 26 6	5 28 46	7 1 15	8 7 4	10 5 51	1 3 3	2 19 51
4	24 21	26 50	5 29 29	1 59	7 59	7 46	4 28	20 40
8	25 4	27 33	6 0 13	2 43	8 55	9 43	5 51	21 28
12	25 47	28 17	0 56	3 27	9 52	11 41	7 13	22 16
16	26 30	29 0	1 39	4 11	10 49	13 41	8 34	23 4
20	27 13	4 29 44	2 23	4 56	11 46	15 43	9 53	23 52
24	27 57	5 0 27	3 6	5 40	12 45	17 46	11 11	24 39
28	28 40	1 11	3 49	6 24	13 44	19 50	12 27	25 26
32	3 29 23	5 1 55	6 4 32	7 7 9	8 14 44	10 21 56	1 13 42	2 26 13
36	4 0 6	2 38	5 16	7 54	15 45	24 3	14 56	27 0
40	0 49	3 22	5 59	8 38	16 46	26 11	16 8	27 46
44	1 32	4 6	6 42	9 23	17 49	10 28 20	17 19	28 33
48	2 16	4 49	7 25	10 8	18 52	11 0 29	18 30	2 29 18
52	2 59	5 33	8 8	10 53	19 56	2 39	19 39	3 0 4
56	3 42	6 16	8 52	11 39	21 0	4 50	20 46	0 50
60	4 4 25	5 7 0	6 9 35	7 12 24	8 22 7	11 7 0	1 21 53	3 1 36

Proportional Parts

Var. in 4 mins. :	0°-42′	0° – 45′	0° – 48′	0° – 52′	0° – 57′	1° – 2′	1° – 7′	1° – 12′	1°—17′
Var. in 3 mins.	31′	34′	36′	39′	43′	46′	50′	54′	58′
,, ,, 2 mins.	21	23	24	26	29	31	34	36	39
,, ,, 1 min.	11	11	12	13	14	16	17	18	19

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Ascendant for Latitude 50° 0′ North

(For Prague 50° N 05′, etc.)

Minutes	SIDEREAL TIME 0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s °	s ° ′	s °	s °	s ° ′	s ° ′	s ° ′
0	3 2 22	4 4 48	5 7 0	6 9 12	7 11 38	8 20 51	11 7 0	1 23 9
4	3 7	5 31	7 43	9 55	12 23	21 58	9 15	24 14
8	3 52	6 13	8 26	10 37	13 8	23 5	11 30	25 18
12	4 37	6 56	9 9	11 20	13 53	24 14	13 45	26 22
16	5 21	7 39	9 52	12 2	14 39	25 23	16 0	27 24
20	6 5	8 22	10 36	12 45	15 24	26 34	18 13	28 26
24	6 50	9 4	11 19	13 28	16 10	27 46	20 25	1 29 27
28	7 34	9 47	12 2	14 11	16 56	8 29 0	22 36	2 0 27
32	3 8 18	4 10 30	5 12 45	6 14 53	7 17 43	9 0 14	11 24 46	2 1 26
36	9 1	11 13	13 28	15 36	18 29	1 30	26 54	2 24
40	9 45	11 55	14 11	16 19	19 16	2 48	11 29 1	3 22
44	10 29	12 38	14 54	17 1	20 3	4 7	0 1 7	4 19
48	11 13	13 21	15 37	17 44	20 50	5 27	3 10	5 16
52	11 56	14 4	16 20	18 27	21 38	6 49	5 12	6 12
56	12 40	14 47	17 3	19 9	22 25	8 13	7 11	7 7
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 13 23	4 15 29	5 17 46	6 19 52	7 23 13	9 9 38	0 9 9	2 8 2
4	14 6	16 12	18 29	20 35	24 2	11 5	11 4	8 56
8	14 50	16 55	19 12	21 18	24 51	12 34	12 57	9 49
12	15 33	17 38	19 55	22 1	25 39	14 5	14 49	10 43
16	16 16	18 21	20 38	22 43	26 29	15 38	16 38	11 35
20	16 59	19 4	21 21	23 26	27 18	17 12	18 25	12 27
24	17 42	19 47	22 4	24 9	28 9	18 49	20 9	13 19
28	18 25	20 30	22 47	24 52	28 59	20 27	21 52	14 10
32	3 19 8	4 21 13	5 23 30	6 25 35	7 29 50	9 22 8	0 23 33	2 15 1
36	19 51	21 56	24 13	26 18	8 0 41	23 51	25 11	15 51
40	20 34	22 39	24 56	27 1	1 33	25 35	26 48	16 42
44	21 17	23 22	25 39	27 44	2 25	27 22	28 22	17 31
48	21 59	24 5	26 22	28 27	3 17	9 29 11	0 29 55	18 21
52	22 42	24 48	27 5	29 10	4 11	10 1 3	1 1 26	19 9
56	23 25	25 31	27 48	6 29 54	5 4	2 56	2 55	19 58
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 24 8	4 26 14	5 28 30	7 0 37	8 5 58	10 4 51	1 4 22	2 20 47
4	24 51	26 57	29 13	1 20	6 53	6 49	5 47	21 35
8	25 33	27 40	5 29 56	2 4	7 48	8 48	7 11	22 22
12	26 16	28 23	6 0 39	2 47	8 44	10 50	8 33	23 10
16	26 59	29 6	1 22	3 31	9 41	12 53	9 53	23 57
20	27 41	4 29 49	2 5	4 15	10 38	14 58	11 12	24 44
24	28 24	5 0 32	2 47	4 59	11 30	17 6	12 30	25 31
28	29 7	1 15	3 30	5 42	12 34	19 14	13 46	26 18
32	3 29 49	5 1 58	6 4 13	7 6 26	8 13 33	10 21 24	1 15 0	2 27 4
36	4 0 32	2 41	4 56	7 10	14 33	23 35	16 14	27 50
40	1 15	3 24	5 38	7 55	15 34	25 47	17 26	28 36
44	1 58	4 8	6 21	8 39	16 36	10 28 0	18 37	2 29 21
48	2 40	4 51	7 4	9 23	17 38	11 0 15	19 46	3 0 7
52	3 23	5 34	7 46	10 8	18 42	2 30	20 55	0 52
56	4 5	6 17	8 29	10 53	19 46	4 45	22 2	1 37
60	4 4 48	5 7 0	6 9 12	7 11 38	8 20 51	11 7 0	1 23 9	3 2 22

PROPORTIONAL PARTS

Var. in 4 mins :	1°-22′	1°--28′	1° - 35′	1°-41′	1°-48′	1°-54′	2°- 1′	2°- 8′	2°—15′
Var. in 3 mins.	1°-1′	1°-6′	1° 11′	1°—16′	1° - 21′	1 - 25′	1°-31′	1°-36′	1°—41′
,, ,, 2 mins.	41	44	48	51	54	57	1-1	1-4	1-8
,, ,, 1 min.	21	22	24	25	27	29	30	32	34

Ascendant for Latitude 51° 0′ North

(For Bonn 50° N 44′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 3 10	4 5 12	5 7 0	6 8 48	7 10 50	8 19 32	11 7 0	1 24 28
4	3 54	5 54	7 43	9 31	11 34	20 38	9 21	25 32
8	4 39	6 36	8 25	10 13	12 19	21 45	11 41	26 36
12	5 23	7 18	9 8	10 55	13 3	22 53	14 2	27 39
16	6 6	8 0	9 50	11 37	13 48	24 2	16 21	28 41
20	6 50	8 43	10 33	12 19	14 33	25 12	18 39	1 29 41
24	7 34	9 25	11 16	13 1	15 19	26 24	20 57	2 0 42
28	8 17	10 7	11 58	13 43	16 4	27 36	23 13	1 41
32	3 9 1	4 10 49	5 12 41	6 14 26	7 16 50	8 28 51	11 25 27	2 2 39
36	9 44	11 31	13 23	15 8	17 36	9 0 6	27 40	3 37
40	10 27	12 14	14 6	15 50	18 22	1 23	11 29 51	4 34
44	11 10	12 56	14 48	16 32	19 8	2 42	0 2 0	5 31
48	11 53	13 38	15 31	17 14	19 55	4 2	4 7	6 26
52	12 36	14 20	16 13	17 56	20 42	5 24	6 12	7 21
56	13 19	15 3	16 56	18 39	21 29	6 48	8 15	8 16

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 14 2	4 15 45	5 17 38	6 19 21	7 22 16	9 8 13	0 10 15	2 9 10
4	14 45	16 27	18 21	20 3	23 4	9 41	12 13	10 3
8	15 28	17 10	19 3	20 45	23 52	11 10	14 9	10 56
12	16 10	17 52	19 46	21 28	24 40	12 41	16 2	11 48
16	16 53	18 35	20 28	22 10	25 29	14 14	17 53	12 40
20	17 36	19 17	21 11	22 52	26 18	15 49	19 42	13 32
24	18 18	19 59	21 53	23 35	27 7	17 26	21 28	14 23
28	19 1	20 42	22 36	24 17	27 57	9 19 6	23 12	15 13
32	3 19 43	4 21 24	5 23 18	6 24 59	7 28 47	9 20 48	0 24 54	2 16 3
36	20 25	22 7	24 1	25 42	7 29 37	22 32	26 34	16 53
40	21 8	22 49	24 43	26 24	8 0 28	24 18	28 11	17 42
44	21 50	23 32	25 25	27 7	1 20	26 7	0 29 46	18 31
48	22 32	24 14	26 8	27 50	2 12	27 58	1 1 19	19 20
52	23 15	24 57	26 50	28 32	3 4	9 29 51	2 50	20 8
56	23 57	25 39	27 32	29 15	3 57	10 1 47	4 19	20 56

Minute	2h	5h	8h.	11h	14h	17h	20h	23h
0	3 24 39	4 25 22	5 28 15	6 29 58	8 4 50	10 3 45	1 5 47	2 21 44
4	25 21	27 4	28 57	7 0 41	5 44	5 45	7 12	22 31
8	26 4	27 47	5 29 40	1 23	6 39	7 48	8 36	23 18
12	26 46	28 29	6 0 22	2 6	7 34	9 53	9 58	24 5
16	27 28	29 12	1 4	2 50	8 29	12 0	11 18	24 52
20	28 10	4 29 54	1 46	3 33	9 26	14 9	12 37	25 38
24	28 52	5 0 37	2 29	4 16	10 23	16 20	13 54	26 24
28	3 29 34	1 19	3 11	4 59	11 21	18 33	15 9	27 10
32	4 0 16	5 2 2	6 3 53	7 5 43	8 12 19	10 20 47	1 16 24	2 27 56
36	0 59	2 44	4 53	6 26	13 18	23 3	17 36	28 41
40	1 41	3 27	5 17	7 10	14 19	25 21	18 48	2 29 27
44	2 23	4 10	6 0	7 54	15 19	27 39	19 58	3 0 12
48	3 5	4 52	6 42	8 37	16 21	10 29 58	21 7	0 57
52	3 47	5 35	7 24	9 21	17 24	11 2 19	22 15	1 41
56	4 29	6 17	8 6	10 6	18 23	4 39	23 22	2 26
60	4 5 12	5 7 0	6 8 48	7 10 50	8 19 32	11 7 0	1 24 28	3 3 10

PROPORTIONAL PARTS

Var. in 4 mins. :	0°-42′	0°-45′	0°-49′	0°-54′	0°-59′	1°-4′	1°-9′	1°-14′	1°-19′
Var. in 3 mins.	31′	34′	37′	40′	44′	48′	52′	55′	59′
" " 2 mins.	21	23	25	27	30	32	35	37	40
" " 1 min.	11	11	12	14	15	16	17	19	20

Ascendant for LONDON, Latitude 51° 32′ North

(Also for Leipzig 51° N 20′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 3 36	4 5 25	5 7 0	6 8 35	7 10 24	8 18 50	11 7 0	1 25 10
4	4 20	6 6	7 42	9 18	11 8	19 55	9 25	26 14
8	5 4	6 48	8 24	10 0	11 53	21 2	11 48	27 18
12	5 47	7 30	9 7	10 41	12 37	22 9	14 12	28 20
16	6 30	8 12	9 49	11 23	13 22	13 18	16 34	1 29 22
20	7 14	8 54	10 31	12 5	14 6	24 28	18 55	2 0 23
24	7 57	9 36	11 13	12 47	14 52	25 39	21 16	1 22
28	8 40	10 18	11 55	13 29	15 36	26 51	23 34	2 20
32	3 9 24	4 11 0	5 12 38	6 14 11	7 16 22	8 28 6	11 25 51	2 3 18
36	10 7	11 42	13 20	14 58	17 8	8 29 21	11 28 6	4 16
40	10 50	12 24	14 2	15 35	17 53	9 0 37	0 0 20	5 12
44	11 32	13 6	14 44	16 16	18 39	1 56	2 31	6 9
48	12 16	13 48	15 37	16 58	19 26	3 16	4 40	7 4
52	12 58	14 30	16 9	17 40	20 12	4 38	6 47	7 58
56	13 40	15 12	16 51	18 22	20 59	6 2	8 51	8 53

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 14 23	4 15 54	5 17 33	6 19 4	7 21 46	9 7 27	0 10 53	2 9 46
4	15 6	16 36	18 16	19 46	22 33	8 54	12 52	10 39
8	15 48	17 18	18 58	20 28	23 21	10 23	14 49	11 31
12	16 30	18 0	19 40	21 10	24 8	11 55	16 43	12 23
16	17 13	18 42	20 22	21 52	24 57	13 28	18 36	13 15
20	17 55	19 24	21 5	22 34	25 46	15 3	20 25	14 6
24	18 37	20 6	21 47	23 16	26 34	16 41	22 12	14 57
28	19 20	20 49	22 29	23 58	27 24	18 21	23 57	15 47
32	3 20 2	4 21 31	5 23 11	6 24 40	7 28 13	9 20 3	0 25 39	2 16 36
36	20 44	22 13	23 54	25 23	29 3	21 48	27 19	17 28
40	21 26	22 55	24 36	26 5	7 29 54	23 35	0 28 57	18 14
44	22 8	23 38	25 18	26 47	8 0 45	25 24	1 0 33	19 3
48	22 50	24 20	26 0	27 30	1 37	27 17	2 5	19 52
52	23 32	25 2	26 42	28 12	2 29	9 29 11	3 37	20 39
56	24 14	25 44	27 24	28 54	3 21	10 1 8	5 6	21 27

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 24 56	4 26 27	5 28 6	6 29 37	8 14 14	10 3 7	1 6 33	2 22 14
4	25 38	27 9	28 48	7 0 20	5 7	5 9	7 58	23 1
8	26 20	27 51	5 29 30	1 2	6 2	7 13	9 22	23 48
12	27 2	28 33	6 0 12	1 44	6 56	9 20	10 44	24 34
16	27 44	29 16	0 54	2 28	7 51	11 29	12 4	25 21
20	28 25	4 29 58	1 36	3 10	8 48	13 40	13 23	26 7
24	29 7	5 0 40	2 18	3 53	9 44	15 54	14 39	26 52
28	3 29 49	1 22	3 0	4 36	10 42	18 9	15 54	27 39
32	4 0 31	5 2 5	6 3 42	7 5 20	8 11 40	10 20 20	1 17 9	2 28 24
36	1 13	2 47	4 24	6 3	12 38	22 44	18 21	29 9
40	1 55	3 29	5 6	6 46	13 38	25 5	19 32	2 29 54
44	2 37	4 11	5 48	7 30	14 38	27 26	20 42	3 0 38
48	3 19	4 53	6·30	8 13	15 40	10 29 48	21 51	1 23
52	4 0	5 36	7 12	8 56	16 42	11 2 12	22 58	2 7
56	4 42	6 18	7 54	9 41	17 46	4 35	24 5	2 52
60	4 5 25	5 7 0	6 8 35	7 10 24	8 18 50	11 7 0	1 25 10	3 3 36

PROPORTIONAL PARTS

Var. in 4 mins	1° – 24′	1° – 30′	1° – 36′	1° – 44′	1° – 52′	2° – 0′	2° – 8′	2° – 16′	2° 24′
Var. in 3 mins.	1° – 3′	1° – 7′	1° – 12′	1° – 18′	1° – 24′	1° – 30′	1° – 36′	1 – 42′	1° – 48′
,, ,, 2 mins.	42	45	48	52	56	60	1-4	1-8	1-12
,, ,, 1 min.	21	23	24	26	28	30	32	34	36

Ascendant for Latitude 52° 0′ North

(For Warsaw 52° N 12′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 4 0	4 5 36	5 7 0	6 8 24	7 10 0	8 18 9	11 7 0	1 25 51
4	4 43	6 17	7 42	9 6	10 44	19 14	9 27	26 55
8	5 27	6 59	8 24	9 48	11 28	20 20	11 54	27 58
12	6 10	7 41	9 6	10 29	12 12	21 27	14 20	1 29 0
16	6 53	8 22	9 48	11 11	12 57	22 35	16 45	2 0 1
20	7 36	9 4	10 30	11 53	13 41	23 45	19 9	1 1
24	8 19	9 45	11 12	12 34	14 26	24 56	21 33	2 0
28	9 2	10 27	11 54	13 16	15 10	26 8	23 54	2 58
32	3 9 45	4 11 9	5 12 36	6 13 57	7 15 55	8 27 22	11 26 14	2 3 56
36	10 28	11 51	13 18	14 39	16 41	28 37	11 28 31	4 53
40	11 11	12 32	14 0	15 21	17 26	8 29 53	0 0 47	5 49
44	11 53	13 14	14 42	16 2	18 12	9 1 12	3 0	6 45
48	12 36	13 56	15 24	16 44	18 58	2 31	5 11	7 40
52	13 18	14 38	16 6	17 26	19 44	3 53	7 20	8 34
56	14 0	15 19	16 48	18 7	20 30	5 17	9 26	9 28

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	5 14 43	4 16 1	5 17 30	6 18 49	7 21 17	9 6 42	0 11 29	2 10 21
4	15 25	16 43	18 12	19 31	22 4	8 9	13 30	11 13
8	16 7	17 25	18 54	20 12	22 51	9 38	15 28	12 5
12	16 49	18 7	19 36	20 54	23 38	11 10	17 23	12 57
16	17 31	18 48	20 18	21 36	24 26	12 43	19 17	13 48
20	18 13	19 30	21 0	22 18	25 15	14 19	21 7	14 39
24	18 55	20 12	21 42	22 59	26 3	15 57	22 55	15 29
28	19 37	20 54	22 24	23 41	26 52	17 37	24 40	16 19
32	3 20 19	4 21 36	5 23 6	6 24 23	7 27 41	9 19 20	0 26 23	2 17 8
36	21 1	22 18	23 48	25 5	28 31	21 5	28 3	17 57
40	21 42	23 0	24 30	25 47	7 29 21	22 53	0 29 41	18 45
44	22 24	23 42	25 12	26 29	8 0 12	24 43	1 1 17	19 34
48	23 6	24 24	25 53	27 11	1 3	26 37	2 50	20 22
52	23 48	25 6	26 35	27 53	1 55	9 28 32	4 22	21 9
56	24 29	25 48	27 17	28 35	2 47	10 0 30	5 51	21 56

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 25 11	4 26 30	5 27 59	6 29 17	8 3 39	10 2 31	1 7 18	2 22 43
4	25 53	27 12	28 41	7 0 0	4 32	4 34	8 43	23 30
8	26 34	27 54	5 29 22	0 42	5 26	6 40	10 7	24 16
12	27 16	28 36	6 0 4	1 24	6 20	8 49	11 29	25 2
16	27 58	4 29 18	0 46	2 7	7 15	11 0	12 48	25 48
20	28 39	5 0 0	1 28	2 49	8 11	13 13	14 7	26 34
24	3 29 21	0 42	2 9	3 32	9 7	15 29	15 23	27 19
28	4 0 3	1 24	2 51	4 15	10 4	17 46	16 38	28 5
32	4 0 44	5 2 6	6 3 33	7 4 58	8 11 2	10 20 6	1 17 52	2 28 50
36	1 26	2 48	4 15	5 41	12 0	22 27	19 4	2 29 34
40	2 7	3 30	4 56	6 24	12 59	24 51	20 15	3 0 19
44	2 49	4 12	5 38	7 7	13 59	27 15	21 25	1 3
48	3 31	4 54	6 20	7 50	15 0	10 29 40	22 33	1 48
52	4 12	5 36	7 1	8 33	16 2	11 2 6	23 40	2 32
56	4 54	6 18	7 43	9 17	17 5	4 33	24 46	3 16
60	4 5 36	5 7 0	6 8 24	7 10 0	8 18 9	11 7 0	1 25 51	3 4 0

PROPORTIONAL PARTS

Var. in 4 mins. :	0°-42′	0° - 45′	0° - 48′	0° - 52′	0° - 57′	1° - 3′	1° - 9′	1° - 15′	1° - 21
Var. in 3 mins.	31′	34′	36′	39′	43′	47′	52′	56′	1°-1′
„ „ 2 mins.	21	23	24	26	29	32	35	38	41
„ „ 1 min.	11	11	12	13	14	16	17	19	20

Ascendant for Latitude 53° 0′ North

(For Berlin 52° N 32′, Dublin 53° N 20′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 4 50	4 6 0	5 7 0	6 8 0	7 9 10	8 16 41	11 7 0	27 19
4	5 33	6 41	7 41	8 41	9 53	17 45	9 34	28 22
8	6 16	7 22	8 23	9 22	10 36	18 50	12 8	1 29 24
12	6 59	8 3	9 5	10 3	11 19	19 56	14 41	2 0 25
16	7 41	8 44	9 46	10 44	12 3	21 3	17 13	1 25
20	8 24	9 25	10 27	11 25	12 47	22 12	19 44	2 24
24	9 6	10 7	11 9	12 6	13 31	23 22	22 13	3 22
28	9 49	10 48	11 50	12 48	14 15	24 34	24 40	4 20
32	3 10 31	4 11 29	5 12 32	6 13 29	7 14 59	8 25 46	11 27 6	2 5 17
36	11 13	12 10	13 14	14 10	15 44	27 1	11 29 29	6 13
40	11 55	12 51	13 55	14 51	16 28	28 17	0 1 49	7 8
44	12 37	13 33	14 36	15 32	17 13	8 29 34	4 8	8 3
48	13 19	14 14	15 18	16 13	17 58	9 0 54	6 23	8 57
52	14 0	14 55	15 59	16 54	18 44	2 15	8 35	9 50
56	14 42	15 36	16 41	17 35	19 29	3 38	10 45	10 43

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 15 24	4 16 17	5 17 22	6 18 16	7 20 15	9 5 3	0 12 52	2 11 35
4	16 5	16 59	18 4	18 57	21 1	6 30	14 55	12 27
8	16 47	17 40	18 45	19 38	21 48	7 59	16 56	13 18
12	17 29	18 21	19 26	20 20	22 35	9 31	18 54	14 8
16	18 10	19 3	20 8	21 1	23 22	11 4	20 49	14 58
20	18 51	19 44	20 49	21 42	24 9	12 40	22 41	15 48
24	19 33	20 25	21 31	22 23	24 57	14 19	24 30	16 38
28	20 14	21 7	22 12	23 5	25 45	16 0	26 16	17 27
32	3 20 55	4 21 48	5 22 53	6 23 46	7 26 33	9 17 44	0 28 0	2 18 15
36	21 37	22 29	23 35	24 27	27 22	19 30	0 29 41	19 3
40	22 18	23 11	24 16	25 9	28 12	21 19	1 1 20	19 51
44	22 59	23 52	24 57	25 50	29 1	23 11	2 56	20 38
48	23 40	24 34	25 39	26 31	7 29 52	25 6	4 29	21 25
52	24 21	25 15	26 20	27 13	8 0 42	27 4	6 1	22 12
56	25 3	25 56	27 1	27 55	1 33	9 29 5	7 30	22 59

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 25 44	4 26 38	5 27 43	6 28 36	8 2 25	10 1 8	1 8 57	2 23 45
4	26 25	27 19	28 24	6 29 18	3 17	3 15	10 22	24 31
8	27 6	28 1	29 5	7 0 0	4 10	5 25	11 45	25 16
12	27 47	28 42	5 29 46	0 41	5 3	7 37	13 8	26 2
16	28 28	4 29 24	6 0 27	1 23	5 57	9 52	14 26	26 47
20	29 9	5 0 5	1 9	2 5	6 52	12 11	15 43	27 32
24	3 29 50	0 46	1 50	2 47	7 47	14 31	16 59	28 16
28	4 0 31	1 28	2 31	3 29	8 43	16 54	18 14	29 1
32	4 1 12	5 2 10	6 3 12	7 4 11	8 9 40	10 19 20	1 19 26	2 29 45
36	1 54	2 51	3 53	4 54	10 38	21 47	20 38	3 0 29
40	2 35	3 32	4 34	5 36	11 36	24 16	21 49	1 13
44	3 16	4 14	5 16	6 19	12 35	26 47	22 57	1 57
48	3 57	4 55	5 57	7 1	13 35	10 29 19	24 4	2 41
52	4 38	5 37	6 38	7 44	14 36	11 1 52	25 10	3 24
56	5 19	6 19	7 19	8 27	15 38	4 26	26 15	4 7
60	4 6 0	5 7 0	6 8 0	7 9 10	8 16 41	11 7 0	1 27 19	3 4 50

PROPORTIONAL PARTS

Var. in 4 mins. :	1°-27′	1°–34′	1°–42′	1°–50′	1°–58′	2°–6′	2°–14′	2°–24′	2°–34′
Var. in 3 mins.	1°—5′	1°—10′	1°—16′	1°—22′	1°—28′	1°–34′	1°–40′	1°–48′	1°–55′
" " 2 mins.	44	47	51	55	59	1–3	1–7	1–12	1—17
" " 1 min.	22	24	26	28	30	32	34	36	39

Ascendant for Latitude 54° 0′ North

(For Hamburg 53° N 35′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 5 43	4 6 25	5 7 0	6 7 35	7 8 17	8 15 8	11 7 0	1 28 52
4	6 25	7 6	7 41	8 15	9 0	16 10	9 42	1 29 54
8	7 7	7 46	8 22	8 56	9 42	17 15	12 24	2 0 55
12	7 49	8 27	9 3	9 37	10 25	18 20	15 5	1 55
16	8 31	9 7	9 44	10 17	11 8	19 26	17 45	2 54
20	9 13	9 48	10 25	10 58	11 51	20 34	20 23	3 52
24	9 55	10 28	11 6	11 38	12 34	21 43	23 0	4 49
28	10 36	11 9	11 47	12 19	13 17	22 53	25 34	5 45
32	3 11 18	4 11 50	5 12 28	6 12 59	7 14 1	8 24 5	11 28 5	2 6 41
36	11 59	12 30	13 8	13 40	14 45	25 18	0 0 34	7 36
40	12 41	13 11	13 49	14 20	15 28	26 33	3 1	8 30
44	13 22	13 51	14 30	15 1	16 13	27 50	5 24	9 24
48	14 3	14 32	15 11	15 41	16 57	8 29 9	7 44	10 17
52	14 44	15 13	15 52	16 22	17 42	9 0 29	10 1	11 9
56	15 25	15 53	16 33	17 2	18 26	1 52	12 15	12 1

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	3 16 6	4 16 34	5 17 14	6 17 43	7 19 11	9 3 16	0 14 24	2 12 52
4	16 47	17 15	17 55	18 23	19 57	4 43	16 31	13 43
8	17 28	17 56	18 36	19 4	20 42	6 12	18 34	14 33
12	18 9	18 36	19 17	19 44	21 28	7 43	20 35	15 23
16	18 50	19 17	19 57	20 25	22 15	9 16	22 31	16 12
20	19 31	19 58	20 38	21 6	23 1	10 53	24 25	17 1
24	20 12	20 39	21 19	21 46	23 48	12 32	26 15	17 49
28	20 52	21 19	22 0	22 27	24 35	14 13	28 3	18 37
32	3 21 33	4 22 0	5 22 41	6 23 8	7 25 23	9 15 57	0 29 47	2 19 25
36	22 14	22 41	23 21	23 48	26 11	17 45	1 1 29	20 12
40	22 54	23 22	24 2	24 29	26 59	19 35	3 7	20 59
44	23 35	24 3	24 43	25 10	27 48	21 29	4 44	21 45
48	24 16	24 44	25 24	25 51	28 37	23 25	6 17	22 32
52	24 56	25 24	26 5	26 32	7 29 27	25 26	7 48	23 18
56	25 37	26 5	26 45	27 13	8 0 17	27 29	9 17	24 3

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	3 26 17	4 26 46	5 27 26	6 27 54	8 1 8	9 29 36	1 10 44	2 24 49
4	26 58	27 27	28 7	28 35	1 59	10 1 45	12 8	25 34
8	27 38	28 8	28 47	29 16	2 51	3 59	13 31	26 18
12	28 19	28 49	5 29 28	6 29 57	3 43	6 16	14 51	27 3
16	28 59	4 29 30	6 0 9	7 0 38	4 36	8 35	16 10	27 47
20	3 29 40	5 0 11	0 49	1 19	5 30	10 59	17 27	28 32
24	4 0 20	0 52	1 30	2 1	6 24	13 25	18 42	29 15
28	1 1	1 32	2 10	2 42	7 19	15 54	19 55	2 29 59
32	4 1 41	5 2 13	6 2 51	7 3 24	8 8 15	10 18 26	1 21 7	3 0 43
36	2 22	2 54	3 32	4 5	9 11	21 0	22 17	1 26
40	3 2	3 35	4 12	4 47	10 8	23 37	23 26	2 9
44	3 43	4 16	4 53	5 29	11 6	26 15	24 34	2 52
48	4 23	4 57	5 33	6 11	12 5	10 28 55	25 40	3 35
52	5 4	5 38	6 14	6 53	13 5	11 1 36	26 45	4 18
56	5 45	6 19	6 54	7 35	14 6	4 18	27 50	5 0
60	4 6 25	5 7 0	6 7 35	7 8 17	8 15 8	11 7 0	1 28 52	3 5 43

PROPORTIONAL PARTS

Var. in 4 mins. :	0°-40′	0°-43′	0°-47′	0°-51′	0°-56′	1°-2′	1°-9′	1°-16′	1°-24′
Var. in 3 mins.	30′	32′	35′	38′	42′	46′	52′	57′	1-3′
" " 2 mins.	20	22	24	26	28	31	35	38	42
" " 1 min.	10	11	12	13	14	16	17	19	21

Ascendant for Latitude 56° 0′ North

(For Moscow 55°N45′, Edinburgh 55°N57′, Glasgow 55°N53′, etc.)

Minutes	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 7 32	4 7 17	5 7 0	6 6 43	7 6 28	8 11 45	11 7 0	2 2 15
4	8 13	7 56	7 40	7 23	7 9	12 45	10 3	3 14
8	8 54	8 37	8 20	8 2	7 49	13 46	13 6	4 12
12	9 34	9 15	8 59	8 41	8 31	14 49	16 7	5 10
16	10 15	9 54	9 39	9 21	9 12	15 52	19 6	6 6
20	10 55	10 34	10 19	10 0	9 53	16 57	22 4	7 1
24	11 36	11 13	10 59	10 39	10 35	18 3	24 58	7 56
28	12 16	11 53	11 39	11 19	11 17	19 11	11 27 49	8 50
32	3 12 56	4 12 32	5 12 18	6 11 58	7 11 58	8 20 20	0 0 36	2 9 43
36	13 36	13 11	12 58	12 37	12 41	21 31	3 20	10 35
40	14 16	13 51	13 38	13 16	13 23	22 44	5 59	11 27
44	14 56	14 30	14 18	13 56	14 5	23 58	8 34	12 18
48	15 36	15 10	14 57	14 35	14 48	25 14	11 4	13 9
52	16 16	15 50	15 37	15 14	15 31	26 32	13 30	13 59
56	16 55	16 29	16 17	15 54	16 14	27 52	15 52	14 48
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 17 35	4 17 9	5 16 57	6 16 33	7 16 57	8 29 15	0 18 9	2 15 37
4	18 15	17 48	17 36	17 12	17 40	9 0 40	20 22	16 26
8	18 54	18 28	18 16	17 52	18 24	2 7	22 30	17 14
12	19 34	19 7	18 56	18 31	19 8	3 37	24 34	18 1
16	20 14	19 47	19 36	19 10	19 58	5 9	26 34	18 48
20	20 53	20 26	20 15	19 50	20 37	6 45	0 28 30	19 35
24	21 32	21 6	20 55	20 29	21 22	8 23	1 0 22	20 21
28	22 12	21 46	21 35	21 9	22 7	10 5	2 10	21 7
32	3 22 51	4 22 25	5 22 14	6 21 48	7 22 53	9 11 50	1 3 55	2 21 53
36	23 31	23 5	22 54	22 28	23 39	13 38	5 37	22 38
40	24 10	23 45	23 34	23 7	24 25	15 30	7 15	23 23
44	24 50	24 24	24 13	23 46	25 12	17 26	8 51	24 7
48	25 29	25 4	24 53	24 26	25 59	19 26	10 23	24 52
52	26 8	25 44	25 32	25 6	26 46	21 30	11 53	25 36
56	26 48	26 24	26 12	25 45	27 34	23 38	13 20	26 20
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 27 27	4 27 3	5 26 51	6 26 25	7 28 23	9 25 51	1 14 45	2 27 3
4	28 6	27 43	27 31	27 5	7 29 12	9 28 8	16 8	27 46
8	28 46	28 23	28 10	27 44	8 0 1	10 0 30	17 28	28 29
12	3 29 25	29 3	28 50	28 24	0 51	2 55	18 46	29 12
16	4 0 4	4 29 42	5 29 30	29 4	1 42	5 26	20 2	2 29 55
20	0 44	5 0 22	6 0 9	6 29 44	2 33	8 1	21 16	3 0 37
24	1 23	1 2	0 49	7 0 24	3 25	10 40	22 29	1 19
28	2 2	1 42	1 28	1 4	4 17	13 24	23 40	2 2
32	4 2 41	5 2 21	6 2 7	7 1 44	8 5 10	10 16 11	1 24 49	3 2 43
36	3 21	3 1	2 47	2 24	6 4	19 2	25 57	3 25
40	4 0	3 41	3 26	3 5	6 59	21 56	27 3	4 7
44	4 39	4 21	4 6	3 45	7 54	24 54	28 8	4 48
48	5 19	5 1	4 45	4 26	8 50	10 27 53	1 29 11	5 29
52	5 58	5 40	5 24	5 6	9 48	11 0 54	2 0 14	6 11
56	6 37	6 20	6 4	5 47	10 46	3 57	1 15	6 51
60	4 7 17	5 7 0	6 6 43	7 6 28	8 11 45	11 7 0	2 2 15	3 7 32

PROPORTIONAL PARTS

Var in 4 mins :	1°-32′	1°-41′	1°-51′	2°-2′	2°-13′	2°-25′	2°-37′	2°-50′	3°-3′
Var. in 3 mins.	1°-9′	1°-16′	1°-23′	1°-31′	1°-40′	1-49′	1°-58′	2°-7′	2°-17′
„ „ 2 mins.	46	51	56	1-1	1-7	1-13	1-19	1-25	1-32
„ „ 1 min.	23	25	28	31	33	36	39	43	46

Ascendant for Latitude 58° 0′ North

(For all places in or near 58°N. latitude)

Minute	SIDEREAL TIME							
	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 9 30	4 8 11	5 7 0	6 5 49	7 4 30	8 7 58	11 7 0	2 6 2
4	10 9	8 49	7 39	6 27	5 10	8 54	10 34	6 58
8	10 48	9 28	8 17	7 5	5 49	9 52	14 6	7 52
12	11 27	10 6	8 56	7 43	6 28	10 50	17 37	8 46
16	12 5	10 44	9 34	8 21	7 8	11 50	21 4	9 39
20	12 44	11 22	10 13	8 59	7 48	12 51	24 28	10 31
24	13 23	12 0	10 52	9 37	8 27	13 54	11 27 47	11 23
28	14 2	12 38	11 30	10 15	9 7	14 58	0 1 0	12 13
32	3 14 40	4 13 17	5 12 9	6 10 53	7 9 47	8 16 3	0 4 8	2 13 3
36	15 19	13 55	12 47	11 31	10 27	17 10	7 9	13 53
40	15 57	14 33	13 26	12 9	11 8	18 18	10 5	14 42
44	16 36	15 11	14 4	12 48	11 48	19 29	12 53	15 30
48	17 14	15 50	14 43	13 26	12 29	20 41	15 36	16 17
52	17 52	16 28	15 22	14 4	13 10	21 55	18 11	17 5
56′	18 31	17 6	16 0	14 42	13 51	23 11	20 41	17 51
	1h	4h	7h	10h	13h	16h	19h	22h
0	3 19 9	4 17 45	5 16 39	6 15 20	7 14 32	8 24 30	0 23 4	2 18 37
4	19 47	18 23	17 17	15 58	15 14	25 51	25 22	19 23
8	20 25	19 1	17 56	16 36	15 55	27 15	27 34	20 9
12	21 4	19 40	18 34	17 14	16 37	8 28 41	0 29 40	20 53
16	21 42	20 18	19 13	17 52	17 19	9 0 11	1 1 42	21 38
20	22 20	20 57	19 51	18 30	18 2	1 43	3 38	22 22
24	22 58	21 35	20 30	19 8	18 44	3 19	5 30	23 6
28	23 36	22 13	21 8	19 46	19 27	4 59	7 17	23 50
32	3 24 14	4 22 52	5 21 47	6 20 24	7 20 10	9 6 43	1 9 1	2 24 33
36	24 52	23 30	22 25	21 2	20 54	8 30	10 41	25 16
40	25 30	24 9	23 3	21 40	21 38	10 22	12 17	25 58
44	26 8	24 47	23 42	22 18	22 22	12 18	13 49	26 41
48	26 46	25 26	24 20	22 56	23 7	14 20	15 18	27 23
52	27 24	26 4	24 59	23 35	23 52	16 26	16 45	28 5
56	28 2	26 43	25 37	24 13	24 37	18 38	18 9	28 46
	2h	5h	8h	11h	14h	17h	20h	23h
0	3 28 40	4 27 21	5 26 15	6 24 51	7 25 23	9 20 56	1 19 30	2 29 28
4	29 18	28 0	26 54	25 29	26 9	23 19	20 49	3 0 9
8	3 29 56	28 38	27 32	26 8	26 55	25 49	22 5	0 50
12	4 0 34	29 17	28 10	26 46	27 43	9 28 24	23 19	1 31
16	1 12	4 29 55	28 49	27 24	28 30	10 1 7	24 31	2 12
20	1 51	5 0 34	5 29 27	28 3	7 29 18	3 55	25 41	2 52
24	2 29	1 13	6 0 5	28 41	8 0 7	6 51	26 50	3 32
28	3 7	1 51	0 43	29 20	0 57	9 52	27 57	4 13
32	4 3 45	5 2 30	6 1 22	6 29 58	8 1 47	10 13 0	1 29 2	3 4 53
36	4 23	3 8	2 0	7 0 37	2 37	16 13	2 0 6	5 33
40	5 1	3 47	2 38	1 16	3 29	19 32	1 9	6 12
44	5 39	4 26	3 16	1 55	4 21	22 56	2 10	6 52
48	6 17	5 4	3 54	2 33	5 14	26 23	3 10	7 32
52	6 55	5 43	4 32	3 12	6 7	10 29 54	4 8	8 11
56	7 33	6 21	5 11	3 51	7 2	11 3 26	5 6	8 50
60	4 8 11	5 7 0	6 5 49	7 4 30	8 7 58	11 7 0	2 6 2	3 9 30

PROPORTIONAL PARTS

Var. in 4 mins.:	0°–38′	0°–42′	0°–47′	0°–52′	0°–58′	1°–4′	1°–11′	1°–19′	1°–28′
Var. in 3 mins :	28′	31′	35′	39′	43′	48′	53′	59′	1-6′
„ „ 2 mins :	19	21	24	26	29	32	36	40	44
„ „ 1 min,	10	11	12	13	15	16	18	20	22

Ascendant for Latitude 60° 0′ North

(For Leningrad 59°N55′, Oslo 59°N54′, etc.)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 11 35	4 9 9	5 7 0	6 4 51	7 2 25	8 3 43	11 7 0	2 10 17
4	12 12	9 45	7 37	5 28	3 3	4 35	11 23	11 8
8	12 49	10 22	8 15	6 5	3 40	5 28	15 43	11 58
12	13 26	10 59	8 52	6 42	4 18	6 22	19 59	12 48
16	14 3	11 36	9 29	7 18	4 55	7 16	24 10	13 36
20	14 40	12 13	10 7	7 55	5 33	8 12	11 28 12	14 24
24	15 17	12 50	10 44	8 32	6 11	9 9	0 2 6	15 12
28	15 54	13 27	11 21	9 9	6 49	10 8	5 50	15 58
32	3 16 31	4 14 4	5 11 59	6 9 45	7 7 27	8 11 8	0 9 25	2 16 45
36	17 8	14 41	12 36	10 22	8 5	12 9	12 48	17 30
40	17 45	15 18	13 13	10 59	8 43	13 12	16 2	18 16
44	18 22	15 55	13 51	11 35	9 21	14 16	19 5	19 0
48	18 59	16 32	14 28	12 12	10 0	15 22	21 59	19 44
52	19 36	17 9	15 5	12 49	10 38	16 30	24 43	20 28
56	20 12	17 46	15 43	13 25	11 17	17 41	27 18	21 12

	1h	4h	7h	10h	13h	16h	19h	22h
0	3 20 49	4 18 23	5 16 20	6 14 2	7 11 56	8 18 53	0 29 44	2 21 54
4	21 26	19 0	16 57	14 38	12 35	20 8	1 2 3	22 37
8	22 2	19 37	17 34	15 15	13 14	21 25	4 15	23 19
12	22 39	20 14	18 12	15 52	13 54	22 46	6 20	24 1
16	23 15	20 51	18 49	16 28	14 33	24 9	8 19	24 43
20	23 52	21 28	19 26	17 5	15 13	25 36	10 12	25 24
24	24 29	22 5	20 3	17 41	15 53	27 7	11 59	26 5
28	25 5	22 42	20 40	18 18	16 33	8 28 40	13 42	26 46
32	3 25 42	4 23 20	5 21 18	6 18 55	7 17 14	9 0 18	1 15 20	2 27 27
36	26 19	23 57	21 55	19 31	17 55	2 1	16 53	28 7
40	26 55	24 34	22 32	20 8	18 35	3 48	18 24	28 47
44	27 32	25 11	23 9	20 45	19 17	5 41	19 51	2 29 27
48	28 8	25 48	23 46	21 21	19 59	7 40	21 14	3 0 6
52	28 45	26 26	24 23	21 58	20 41	9 45	22 35	0 46
56	29 22	27 3	25 0	22 34	21 28	11 57	23 52	1 25

	2h	5h	8h	11h	14h	17h	20h	23h
0	3 29 58	4 27 40	5 25 37	6 23 11	7 22 6	9 14 16	1 25 7	3 2 4
4	4 0 35	28 17	26 14	23 48	22 48	16 42	26 19	2 43
8	1 11	28 55	26 51	24 25	23 32	19 17	27 30	3 22
12	1 48	4 29 32	27 29	25 1	24 16	22 1	28 38	4 0
16	2 25	5 0 9	28 5	25 38	25 0	24 55	1 29 44	4 39
20	3 1	0 47	28 42	26 15	25 44	9 27 58	2 0 48	5 17
24	3 38	1 24	29 19	26 52	26 30	10 1 12	1 51	5 55
28	4 15	2 1	5 29 56	27 29	27 15	4 35	2 52	6 33
32	4 4 51	5 2 39	6 0 33	6 28 6	7 28 1	10 8 10	2 3 52	3 7 11
36	5 28	3 16	1 10	28 43	28 48	11 54	4 51	7 49
40	6 5	3 53	1 47	29 20	7 29 36	15 48	5 48	8 27
44	6 42	4 31	2 24	6 29 57	8 0 24	19 50	6 44	9 5
48	7 18	5 8	3 1	7 0 34	1 12	24 1	7 38	9 42
52	7 55	5 45	3 38	1 11	2 2	10 28 17	8 32	10 20
56	8 32	6 23	4 15	1 48	2 52	11 2 37	9 25	10 57
60	4 9 9	5 7 0	6 4 51	7 2 25	8 3 43	11 7 0	2 10 17	3 11 35

PROPORTIONAL PARTS

Var. in 4 mins.:	1°-38′	1°-50′	2°-4′	2°-20′	2°-38′	2°-58′	3°-22′	3°-50′	4°-22′
Var. in 3 mins.	1°-13′	1°-22′	1°-33′	1°-45′	1°-58′	2°-13′	2°-31′	2°-52′	3°-16′
" " 2 mins.	49	55	1-2	1-10	1-19	1-29	1-41	1°-55	2-11
" " 1 min.	25	28	31	35	40	45	51	58	1-6

TENTH HOUSE or M.C.

(For all places on the Earth)

SIDEREAL TIME

Minute	0h	3h	6h	9h	12h	15h	18h	21h
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	11 7 0	0 24 28	2 7 0	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32
4	8 5	25 28	7 55	20 32	8 5	25 28	7 55	20 32
8	9 11	26 27	8 50	21 32	9 11	26 27	8 50	21 32
12	10 16	27 27	9 45	22 32	10 16	27 27	9 45	22 32
16	11 22	28 26	10 40	23 33	11 22	28 26	10 40	23 33
20	12 27	0 29 25	11 35	24 33	12 27	6 29 25	11 35	24 33
24	13 32	1 0 23	12 30	25 34	13 32	7 0 23	12 30	25 34
28	14 37	1 22	13 26	26 35	14 37	1 22	13 26	26 35
32	11 15 43	1 2 21	2 14 21	3 27 36	5 15 43	7 2 21	8 14 21	9 27 36
36	16 48	3 19	15 16	28 37	16 48	3 19	15 16	28 37
40	17 53	4 17	16 11	3 29 39	17 53	4 17	16 11	9 29 39
44	18 58	5 15	17 7	4 0 41	18 58	5 15	17 7	10 0 41
48	20 3	6 13	18 2	1 42	20 3	6 13	18 2	1 42
52	21 8	7 11	18 58	2 44	21 8	7 11	18 58	2 44
56	22 12	8 8	19 53	3 47	22 12	8 8	19 53	3 47

Minute	1h	4h	7h	10h	13h	16h	19h	22h
0	11 23 17	1 9 5	2 20 49	4 4 49	5 23 17	7 9 5	8 20 49	10 4 49
4	24 21	10 8	21 44	5 52	24 21	10 3	21 44	5 52
8	25 26	11 0	22 40	6 54	25 26	11 0	22 40	6 54
12	26 30	11 57	23 36	7 57	26 30	11 57	23 36	7 57
16	27 34	12 54	24 32	9 0	27 34	12 54	24 32	9 0
20	28 38	13 50	25 28	10 3	28 38	13 50	25 28	10 3
24	11 29 42	14 47	26 24	11 7	5 29 42	14 47	26 24	11 7
28	0 0 46	15 43	27 20	12 10	6 0 46	15 43	27 20	12 10
32	0 1 50	1 16 40	2 28 17	4 13 14	6 1 50	7 16 40	8 28 17	10 13 14
36	2 53	17 36	2 29 13	14 18	2 53	17 36	8 29 13	14 18
40	3 57	18 32	3 0 10	15 22	3 57	18 32	9 0 10	15 22
44	5 0	19 28	1 6	16 26	5 0	19 28	1 6	16 26
48	6 3	20 24	2 3	17 30	6 3	20 24	2 3	17 30
52	7 6	21 20	3 0	18 34	7 6	21 20	3 0	18 34
56	8 8	22 16	3 57	19 39	8 8	22 16	3 57	19 39

Minute	2h	5h	8h	11h	14h	17h	20h	23h
0	0 9 11	1 23 11	3 4 55	4 20 43	6 9 11	7 23 11	9 4 55	10 20 43
4	10 13	24 7	5 52	21 48	10 13	24 7	5 52	21 48
8	11 16	25 2	6 49	22 52	11 16	25 2	6 49	22 52
12	12 19	25 58	7 47	23 57	12 18	25 58	7 47	23 57
16	13 19	26 53	8 45	25 2	13 19	26 53	8 45	25 2
20	14 21	27 49	9 43	26 7	14 21	27 49	9 43	26 7
24	15 23	28 44	10 41	27 12	15 23	28 44	10 41	27 12
28	16 24	1 29 39	11 39	28 17	16 24	7 29 39	11 39	28 17
32	0 17 25	2 0 34	3 12 38	4 29 23	6 17 25	8 0 34	9 12 38	10 29 23
36	18 26	1 30	13 37	5 0 28	18 26	1 30	13 37	11 0 28
40	19 27	2 25	14 35	1 33	19 27	2 25	14 35	1 33
44	20 27	3 20	15 34	2 38	20 27	3 20	15 34	2 38
48	21 28	4 15	16 33	3 44	21 28	4 15	16 33	3 44
52	22 28	5 10	17 33	4 49	22 28	5 10	17 33	4 49
56	23 28	6 5	18 32	5 55	23 28	6 5	18 32	5 55
60	0 24 28	2 7 0	3 19 32	5 7 0	6 24 28	8 7 0	9 19 32	11 7 0

PROPORTIONAL PARTS

Variation in 4 mins. :	1°−5′	1°−3′	1°−1′	0°−59′	0°−57′	0°−55′.
Variation in 3 mins. :	49′	47	46′	44′	43′	41′
" " 2 mins.	32	31	31	30	29	28
" " 1 min.	16	16	15	15	14	14

APPENDIX I

सूक्ष्मता

Accuracy of data and relative errors

In correctly ascertaining the exact value of the ascendant or of the tenth house, it is essential that the data employed should be as accurate as possible. For this purpose the following two elements are required. *Firstly*, the time of the event should be recorded correctly and with as much accuracy as possible, and *secondly* the exact location of the place of occurrence should also be known. But in general cases in which we are required to find the ascendant some amount of error is unavoidable, and consequently the exact value of the ascendant etc. cannot be secured. Let us now consider the different sources of error and the relative inaccuracies in the ascendant resulting therefrom.

The astrologer is ordinarily concerned with the time of birth of a child the time of running a race, etc. In case of a birth, leaving aside the controversy as to whether the time of separation from the mother's womb or the time of first cry should be regarded as the birth-time, we are in no case enabled to record the time beyond the measure of a minute. When we record the time in terms of minutes, we are liable to commit an error which may amount to as much as 30 secs. even in the case of most accurate recording of the time. Added to this the clock-error, as there is always at least a few seconds of error in almost all the most accurate time-keepers, the total unavoidable error in time on either side amounts to 1 min. at the least. This produces the same amount of error in the sidereal time which deviates the determination of the degree of the ascendant by the following amounts.

ERROR IN TIME	RESULTING	ERROR IN ASCENDANT		
60 secs. or 1 min.	For latitude	0°	...	14′ to 16′
	,, ,,	20°	...	13′ to 19′
	,, ,,	40°	...	12′ to 26′
	,, ,,	60°	...	9′ to 66′

For greater error in time, the resulting error in the Ascendant would however increase proportionately.

Next comes the error in the determination of the exact latitude and longitude of the place of event. We generally use the latitude and longitude of the nearest city or town without making any correction thereof. The lat. and the long. of a city as given at the end of this book or as are obtainable from the Index given in Atlases relate to a certain point, in most cases the *central point* of that city. In order to make necessary corrections to the adopted value of lat. and long. the distance and direction of the place from the above mentioned central point should be ascertained, and then the distance in miles is to be multiplied by the following multipliers to *reduce* it to the co-ordinate system.

Direction of place	Multiplier for latitude (South-North direction)	Multiplier for longitude (West-East direction)	Direction of place	Multiplier for latitude (South-North direction)	Multiplier for longitude (West-East direction)
North	+1·00	0·00	South	−1·00	0·00
N.E.	+0·71	+0·71	S.W.	−0·71	−0·71
East	0·00	+1·00	West	0·00	−1·00
S.E.	−0·71	+0·71	N.W.	+0·71	−0·71

If the place of event lies in the east of the above-mentioned central point, of which the longitude is used, the correct local time would be greater than that obtained by the local time-correction for the adopted longitude, and if it lies in the west the time would be less. This additional error in the local time will deviate the value of the ascendant by some amount as stated above.

To rectify this error the adopted longitude of the central point should be corrected before using it for the place. The following table shows the corrections in longitude and consequently in the local time depending upon the reduced distance in miles (east or west, according to the co-ordinate system as obtained above) of the place of event from the adopted central point. The last col. of figs. given below shows the error in the ascendant if this correction is not taken into account.

In Latitude	Correction in longitude per 10 miles of reduced distance	Corresponding correction in local time East (+), West (−)	Resulting error in Ascendant
°	′	m s	′ ′
0	8·7	0 34·8	8 to 9
10	8·8	0 35·2	8 ,, 10
20	9·2	0 36·8	8 ,, 11
30	10·0	0 40·0	9 ,, 15
40	11·3	0 45·2	9 ,, 20
50	13·5	0 54·0	10 ,, 31
60	17·3	1 09·2	10 ,, 76

It may be seen from the above table that for a distance of 1 mile (reduced in the west-east direction) the error produced in the local time (and also in sidereal time) amounts to 3·5 to 6·9 secs. As it is ordinarily very difficult to locate a place with correctness less than a mile of distance, it is absolutely useless to attend to minor corrections such as the corrections to the Indian sidereal time for different places in India as given in table at the end of the book.

The adopted latitude of the place should also be corrected to obtain the true latitude of the place of event. For this purpose the reduced distance in the south-north direction according to the co-ordinate system as obtained before, should be converted into correction in latitude (in mins. of arc) by the following table and applied to the adopted value of the latitude. The last set of figs. given below shows the resulting error in the ascendant if this correction of latitude is not taken.

In Latitude	Correction in latitude per 10 miles of reduced distance	Resulting error* in the Ascendant	Error* in the Ascendant for an error of 30 of lat.
°	′	′ ′	′ ′
0	8·7	0 to 3·5	0 to 12
20	8·7	0 ,, 3·8	0 ,, 13
30	8·7	0 ,, 4·9	0 ,, 17
40	8·7	0 ,, 7·0	0 ,, 24
50	8·7	0 ,, 12·2	0 ,, 42
60	8·7	0 ,, 31·3	0 ,, 108

*These errors vanish when S.T. is 6*h* or 18*h* and are positive near 0*h* and negative near 12*h* of Sid. time.

The tables in this book have generally been given at intervals of one degree and in some cases half a degree or two degrees of latitude. When the latitude of the place does not exactly agree with the given latitude of the table, recourse should be taken to the method of interpolation between the results of two tables. If this is not done, ther will also be some error. the maximum value of which, when the latitud differs by 30′, has been given in the last column of the above table.

It thus appears from a consideration of the above values of errors that the longitude of the ascendant even carefully ascertained should be regarded as correct to half a degree only, and it is not unlikely that the probable error may amount even to one degree or more in some cases.

Construction of the Tables

The table of the tenth house and those of the ascendants have been reduced to the *nirayaṇa* system by the deduction of 23° 0′ from the calculated longitudes of the corresponding *Sāyana* tables. The formula and the method of construction of these *Sāyana* tables are given below.

In the following discussions the sidereal time has been expressed in degrees and minutes, whereas in the book the same has been given in hours and minutes. The rate of conversion is 4 mins. of time to a degree as shown below.

1′ (min.) = 0*h* 0*m* 4*s*
1° (deg.) = 0*h* 4*m*
15° = 1 0
30° = 2 0

90° (deg.) = 6*h* 0*m*
180° = 12 0
270° = 18 0
360° = 24 0

The ecliptic is inclined to the equator at an angle of 23° 26′ 46″ (in 1947) which is expressed by w. For the sake of convenience we have taken the value of $w = 23° 27′$ (value for 1918).

The Tenth House or M.C.—The point of intersection of the ecliptic of the given time with the meridian of the place is the tenth house for that moment. It is also termed as the mid-heaven or the Medium Coeli (M.C.) and is also sometimes called simply the meridian. The longitude of this point is as usual measured along the ecliptic from the First Point of Aries. The right ascension of the M.C. is the sidereal time of the moment which is often called the R.A.M.C.

If A = Longitude of the M.C. (*sāyana*)

B = R.A.M.C. or the Sid. time (in degrees).

Then $\tan A \cos w = \tan B$...(when A is given and B is required).

or $\tan B \sec w = \tan A$...(when B is given and A is required).

The following table (Auxiliary Table I) gives the value of B corresponding to the integral values of A (when $w = 23° 27′$) together with the values of D and Θ also, where

D = Declination of the M.C. and

$\Theta = 90° -$ angle between the meridian and the ecliptic.

Here $\sin A \sin w = \sin D$
and $\sin w \cos B = \sin \Theta$
or $\cos A \tan w = \tan \Theta$

सहायक सारणी

AUXILIARY TABLE I

A	B	D	θ	A	B	D	θ
0°	0° 0′·0	0° 0′·0	23° 27′·0	45°	42° 32′·0	16° 20′·6	17° 3′·1
1	0 55·0	0 23·9	23 26·8	46	43 31·9	16 38·0	16 46·1
2	1 50·1	0 47·8	23 26·2	47	44 31·9	16 55·2	16 28·8
3	2 45·2	1 11·6	23 25·8	48	45 32·2	17 12·6	16 11·1
4	3 40·2	1 35·4	23 23·9	49	46 32·6	17 28·7	15 53·1
5	4 35·3	1 59·3	23 22·2	50	47 33·2	17 44·9	15 34·8
6	5 30·4	2 23·0	23 20·1	51	48 33·9	18 0·9	15 16·1
7	6 25·6	2 46·8	23 17·6	52	49 34·9	18 16·5	14 57·1
8	7 20·8	3 10·5	23 14·8	53	50 36·0	18 31·9	14 37·8
9	8 16·0	3 34·2	23 11·5	54	51 37·3	18 46·9	14 18·2
10	9 11·3	3 57·8	23 7·9	55	52 38·8	19 1·5	13 58·3
11	10 6·7	4 21·3	23 3·9	56	53 40·5	19 15·8	13 38·1
12	11 2·1	4 44·7	22 59·5	57	54 42·4	19 29·8	13 17·5
13	11 57·5	5 8·2	22 54·7	58	55 44·4	19 43·4	12 56·7
14	12 53·0	5 31·5	22 49·5	59	56 46·6	19 56·7	12 35·6
15	13 48·6	5 54·7	22 44·0	60	57 49·0	20 9·6	12 14·2
16	14 44·3	6 17·9	22 38·1	61	58 51·5	20 22·1	11 52·6
17	15 40·0	6 40·9	22 31·8	62	59 54·3	20 34·3	11 30·6
18	16 35·9	7 3·8	22 25·1	63	60 57·1	20 46·1	11 8·4
19	17 31·8	7 26·7	22 18·0	64	62 0·2	20 57·5	10 45·9
20	18 27·9	7 49·4	22 10·6	65	63 3·4	21 8·5	10 23·3
21	19 24·0	8 11·9	22 2·8	66	64 6·7	21 19·1	10 0·4
22	20 20·2	8 34·4	21 54·6	67	65 10·2	21 29·3	9 37·2
23	21 16·6	8 56·7	21 46·0	68	66 13·9	21 39·1	9 13·8
24	22 13·1	9 18·9	21 37·0	69	67 17·7	21 48·6	8 50·2
25	23 9·7	9 40·9	21 27·7	70	68 21·6	21 57·6	8 26·3
26	24 6·4	10 2·8	21 18·0	71	69 25·7	22 6·2	8 2·3
27	25 3·2	10 24·5	21 7·9	72	70 29·8	22 14·4	7 38·1
28	26 0·2	10 46·1	20 57·4	73	71 34·1	22 22·1	7 13·7
29	26 57·3	11 7·4	20 46·6	74	72 38·6	22 29·4	6 49·1
30	27 54·5	11 28·6	20 35·4	75	73 43·1	22 36·4	6 24·3
31	28 51·9	11 49·6	20 23·8	76	74 47·7	22 42·8	5 59·4
32	29 49·4	12 10·4	20 11·8	77	75 52·5	22 48·9	5 34·4
33	30 47·1	12 31·0	19 59·5	78	76 57·3	22 54·5	5 9·2
34	31 44·9	12 51·5	19 46·8	79	78 2·2	22 59·7	4 43·9
35	32 42·9	13 11·7	19 33·7	80	79 7·2	23 4·4	4 18·5
36	33 41·1	13 31·6	19 20·3	81	80 12·3	23 8·7	3 52·9
37	34 39·4	13 51·4	19 6·5	82	81 17·4	23 12·5	3 27·3
38	35 37·9	14 10·9	18 52·3	83	82 22·6	23 15·9	3 1·6
39	36 36·5	14 30·2	18 37·8	84	83 27·9	23 18·8	2 35·8
40	37 35·3	14 49·3	18 22·9	85	84 33·1	23 21·3	2 9·9
41	38 34·3	15 8·0	18 7·6	86	85 38·5	23 23·4	1 44·0
42	39 33·5	15 26·6	17 52·0	87	86 43·8	23 25·0	1 18·0
43	40 32·8	15 44·9	17 36·1	88	87 49·2	23 26·1	0 52·0
44	41 32·3	16 2·9	17 19·8	89	88 54·6	23 26·8	0 26·0
45	42 32·0	16 20·6	17 3·1	90	90 0·0	23 27·0	0 0·0

When the value of *A*, the argument of the table, is greater than 90°, ascertain its defect from or excess over 180° or 360° whichever is nearer, and then enter the table with that value accoding to the following rule. The corresponding value of *B* in that case should also be subtracted from or added to 180° or 360° as the case may be. *D* and *θ* will be positive or negative as indicated below.

Arg. : *A*—quadrant & reduction			*Results*—value and sign		
—		*A*	*B*	*D*	*θ*
1st	quadrant	*A*	*B*	+*D*	+*θ*
2nd	,,	180°−*A*	180°−*B*	+*D*	−*θ*
3rd	,,	*A*−180°	180°+*B*	−*D*	−*θ*
4th	,,	360°−*A*	360°−*B*	−*D*	+*θ*

The table of the Xth house can be prepared in two ways. Firstly by finding the sidereal time for some given degrees of the M.C. and secondly by finding the M.C. for some given values of the sidereal time. Similar is the case for ascendant also.

A table of the **Tenth House** in terms of the sidereal time for some given degrees of the M.C. (as furnished in the Indian Ephemeris) can now be prepared by converting B into time and arranging against given values of A, the longitude of the M.C. Again the table can easily be rearranged with the values of A against given values of B, the sidereal time of the moment, as has been done in this book (*vide* page 8).†

The Ascendant :—The Ascendant or the orient ecliptic point is the point of intersection of the ecliptic with the eastern horizon of the place. It is the first house and is also sometimes called the horizon.

I. A table of the ascendant for a known latitude of place can be prepared with given values of the longitude of the ascendant as argument of the table (as in the Ind. Eph.) in the following way :—

Let A = given long. of ascendant (*Sāyana*). Then find B and D from the above table corresponding to A Let ϕ = latitude of place.

Now find the angle C* by the formula $\tan\phi \tan D = \sin C$.

As usual C is + *ve* when both ϕ and D are positive or both are negative ; when one is + *ve* and the other — *ve*, the value of C will be negative.

Now the required sidereal time corresponding to the given long. of the ascendant $= B - C - 90°$. This may be converted into time in the usual way and arranged against desired degrees of the ascendant.

If the rising period of each ascending sign (*lagnamāna*) is required, find the sidereal time corresponding to each 30° of the ascendant (*nirayana* or *sāyana* as the case may be), and the differences between the successive values of the sidereal time thus found will be the durations of the different ascending signs in sidereal time interval.

II. When a table of the ascendant prepared for some integral and equidistant values of the sidereal time (as in this book) is required, proceed as follows :—

Suppose A = given sidereal time in deg. + 90°. Then find from the above table the values of B, D and Θ corresponding to A. Now find the angle E from the formula.

$\sin D \tan(\phi + \Theta) = \tan E$. (E will be + *ve* when both D and $\phi + \Theta$ are positive or negative, otherwise E will be − *ve*).

Then the ascendant $= B + E$

If necessary this may be converted into the *nirayana* longitude as in this book.

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† The table on prepage can also be rearranged with integral values of B by writing under col A the angle $90° - B$, under col. B the angle $90° - A$ and interchanging figures under D and θ.

* Here C is the *Chara* or the ascensional difference which is required in finding the timings of sunrise and sunset or the rising or setting times of a planet. Approximate values of C have been given in a table of Ascensional Differences in the Indian Ephemeris

APPENDIX II

Extent of houses and different systems of division

The tables given in this book have furnished the longitude of the ascendant and that of the tenth house only. It now remain to ascertain the degrees of other house. There are various methods for finding the longitudes of the remaining houses, of which only the principal ones will be explained here. Before entering into those discussion a few words need be said regarding the extent of a house with reference to the longitude of that house.

(A) THE EXTENT OF A HOUSE

The circle of the zodiac is divided into 12 houses and as such each house extends over more or less 30° degrees. Now the question is from which point a house will begin and where will it end. According to the European method the longitude of a house is the beginning point of that house, *e.g.* the first house begins from the longtude of the ascendant and extends upto the longitude of the second house from which point again the second house begins, and so on. According to this method the M.C. is the beginning point of the tenth house which ends at the longitude of the 11th house. When a planet falls within the above mentioned region of a particular house, it is said to have occupied that house and to exert its influence over it. The longitude of the different houses are thus the junction point of the houses and as such they are called the Cusps (*Sandhis*) of the houses in the European system.

According to the Indian or Hindu method the above mentioned cusps or longitudes of the houses are the middle points of the respective houses and not the junction points. A house commences from about 15° behind the longitude of that house and extends upto about 15° ahead of it. These junction points which are the cusps or *bhāva sandhis* of this method, are obtainable by dividing by 2, the sum of the longitudes of two consecutive houses of which the *sandhi* is required. A house extends over the span from the preceding *sandhi* upto the following *sandhi* of the house concerned. The longitudes of the houses, such as the ascendant, the M. C. etc., are thus the *central point* of those house and as such are the most sensitive points in the horoscope. But the whole sign in which the degree of ascendant falls is generally considered the first house, and so on. This may be called compartmental system.

The above mentioned Hindu method seems to be more rational and worthy of being followed in all astrological calculations particularly in the casting of a nativity.

(B) DIFFERENT SYSTEMS OF HOUSE-DIVISION

The ascendant and the tenth house are the same in all the systems mentioned below except in the Ptolemaic system or *modus equalis* in which the tenth house is different from the M. C. In all the systems the positions of any six consecutive houses are diametrically opposite to the positions of the remaining six consecutive houses, so that 180° or six signs added to the longitude of any house gives the longitude of the opposite house, thus—

Long. of 10th house or M.C.+6 signs=Long. of 4th house or I.C.
„ „ 11th house+6 signs=Long. of 5th house.
„ „ 12th „ „ „ 6th „
„ „ 1st „ or Asc.+6 signs=Long. of 7th house or desendant.
„ „ 2nd house+6 signs=Long. of 8th house.
„ „ 3rd „ „ 9th „ and so on.

The methods of finding the longitudes of the different houses according to the different systems are stated below. After finding these longtudes, the extent of each house may be determined either according to the above mentioned European or the Hindu method as the reader likes.

(1) Ptolemaic system or modus equalis

In this system all the houses are at equal distances on the ecliptic and their longitudes differ by 30° in each case commencing from the ascendant. Here the degree of the ascendant only is required to be found and the longitudes of the successive houses will have the same degree in the successive signs of the zodiac. The 10th house in this system is thus 90° behind the ascendant and is known as the nonagesimal, which is not the same as the M.C. obtained from the table. The follower of this system will take the nonagesimal point as the tenth house in horoscope-making leaving aside the M.C. which may be utilised for other astrological purposes.

This system of equal division of the ecliptic, which was presumably in vogue in India also in early times is not generally followed at present. But this system is gradually gaining popularity as the arguments in its favour are being rightly advocated by some of the present day astrologers of the West and it is hoped that the merits of this system will be appreciated in this country also before long.

(2) Porphyry's or Current Hindu system

In this system at fiirst the Ascendant and the M.C. are obtained from the tables and then the other two cardinal points *vix.* the descendant or the 7th house and the I.C. or the 4th house are derived therefrom as usual by adding 6 signs to them. Then the difference between the Ascendant and the M.C. is divided into three equal parts and by adding this third part to the M.C. the eleventh house is obtained, and again adding this third part to the 11th house, the 12th house is found. In a similar way by adding to the ascendant successively the third part of the difference between the 4th house and the ascendant, the longitudes of the 2nd and the 3rd houses are obtained. The remaining houses can be worked out by a similar process, but they are easily deducible by adding 6 signs to each of the opposite houses already found out.

The calculation of the different houses in this system is very simple and they can be worked out easily in each individual case, but for the sake of comparison a table is given below showing the distance between each house from the 10th to the 1st for a few places against certain degrees of the ascendant. The extent of the houses from the 1st to the 4th is, however, obtainable by subtracting this given extent from 60° degrees.

DISTANCE BETWEEN EACH HOUSE FROM THE M.C. TO THE ASCENDANT

ASCENDANT			Latitude of place (North)																	
Sayana	Nirayana		0°		13°		19°		22°35′		25°23		31°36′		40°		50°		60°	
°	s	°	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
0	11	7	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
15	11	22	30	46	31	11	31	23	31	31	31	38	31	53	32	16	33	2	33	57
30	0	7	31	22	32	13	32	37	32	53	33	6	33	38	34	26	35	45	37	46
45	0	22	31	39	32	54	33	32	33	55	34	14	35	1	36	15	38	12	41	19
60	1	7	31	29	33	9	33	58	34	28	34	54	35	54	37	31	40	5	44	22
75	1	22	30	53	32	51	33	49	34	25	34	55	36	7	38	3	41	10	46	28
90	2	7	30	0	32	5	33	7	33	46	34	19	35	36	37	41	41	7	47	3
105	2	22	29	7	31	6	32	5	32	43	33	13	34	28	36	31	39	52	45	40
120	3	7	28	31	30	13	31	2	31	35	32	1	33	6	34	50	37	44	42	38
135	3	22	28	21	29	39	30	17	30	42	31	2	31	51	33	10	35	19	38	52
150	4	7	28	38	29	30	29	55	30	11	30	24	30	56	31	47	33	9	35	21
165	4	22	29	14	29	40	29	52	30	0	30	6	30	22	30	47	31	26	32	26
180	5	7	30	0.	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
195	5	22	30	46	30	20	30	8	30	0	29	54	29	35	29	13	28	34	27	34
210	6	7	31	22	30	30	30	5	29	49	29	36	29	4	28	13	26	51	24	39
225	6	22	31	39	30	21	29	43	29	18	28	58	28	9	26	50	24	41	21	8
240	7	7	31	29	29	47	28	58	28	25	27	59	26	54	25	10	22	16	17	22
255	7	22	30	53	28	54	27	55	27	17	26	47	25	32	23	29	20	8	14	20
270	8	7	30	0	27	55	26	53	26	14	25	41	24	24	22	19	18	53	12	57
285	8	22	29	7	27	9	26	11	25	35	25	5	23	53	21	57	18	50	13	32
300	9	7	28	31	26	51	26	2	25	32	25	6	24	6	22	29	19	55	15	38
315	9	22	28	21	27	6	26	28	26	5	25	46	24	59	23	45	21	48	18	41
330	10	7	28	38	27	47	27	23	27	7	26	54	26	22	25	34	24	15	22	14
345	10	22	29	14	28	49	28	37	28	29	28	22	28	7	27	44	26	58	26	3
360	11	7	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0

(3) Placidus's or Semi-Arc System

The principle underlying this system is that when a planet rises in the eastern horizon by the diurnal motion, it is then exactly on the ascendant. Thereafter it passes over the 12th house, the 11th house the 10th house, etc., in equal intervals of time until it sets when it reaches the descendant or the 7th house. Again from the 7th to the 1st house it passes over the different houses in equal intervals of time, which is, however, not necessarily the same as the above mentioned interval but the sum of the two is always 4 hours. When the planet crosses the upper meridian it is on the 10th house or M C. and at the time of crossing the lower meridian it is on the 4th house or the I.C. The moments of the two meridian passages are just mid-way between the rising and setting times, and the lower meridian passage takes place 12 hours* after its passage over the upper meridian. The time interval from the rising to the meridian passage or from the M. Pass. to setting is called the semi-diurnal arc, and similarly the time-interval from the setting to the lower M. Pass. or from the lower M. Pass. to the rising is called the semi-nocturnal arc. One third of the semi-arc is the time required by the planet in passing over the suceessive houses. When the time of meridian passage of a planet on a particular day is known and also the value of the semi-arc is known, the timings of its passage over other houses for that day can easily be tabulated, from which the house position of the planet at any moment on that day can be ascertained.

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*In fact it slightly differs from 12 hours.

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The required time of meridian passage* of the planet, which is not available in ordinary Ephemeris, can be ascertained as being the moment of equality of the R.A. of the planet with the sidereal time of the moment. In finding the semi-arc the declination of the planet ($=\delta$) is required which is given in all Ephemerides. Let ϕ = latitude of the place, and C = ascensional difference. Then from the usual formula

$$\sin C = \tan \phi \tan \delta$$

find the value of C in degrees and minutes and then convert it into hours, minutes, etc.†

Now Semi-diurnal Arc $= 6h + C$.

And Semi-nocturnal Arc $= 12h -$ Semi-diur. Arc $= 6h - C$

The exact method of calculation of the house position of a planet according to the semi-arc system has been described above. But due to the complications of the calculation and non-availability of the M. Pass. times in ordinary Ephemerides, the following simple rule is followed in ordinary tables of houses at the sacrifice of some amount of accuracy, considering that the planets have got no latitude and are just on the ecliptic. The points on the ecliptic which at any particular sidereal time fulfil the above mentioned condition *viz*., are away from the meridian by one-third or two-thirds of the semi-diurnal arc, are tabulated in the usual Tables of Houses as the cusps of the 11th house and the 12th house or of the 9th house and the 8th house respectively as the case may be. The amount of arc by which a planet has advanced in a house from the preceding cusp as compared with the total space covered by that house is the measure of the house positoon of the planet, which can easily be obtained when the cusps of the houses are available. But in exact calculation in which the declination of the planet is utilised the real house-position differs much in many cases from the house-postion obtained from the above simple rule when the planet's latitude is appreciable.

A table is given below showing the extent of different houses for certain degrees of latitude of place, as obtained from the usual table of houses on the Placidian system The given difference between the 10th house and the 11th house when added to the M.C. will give the 11th house according to this system. And the given difference between the 11th and the 12th houses added to the 11th house thus obtained will give the 12th house. Adding to this the difference between the 12th and the 1st houses, we get the 1st house or the Ascendants which has of course already been obtained separately. Similarly by adding to the Ascendant the difference between the 1st and the 2nd houses we get the 2nd house and similarly the 3rd house is also obtained. Although the table is not an exhaustive one, yet it will serve, the purpose quite well like the published tables on the semi-arc system, as the value for the exact degree of the latitude can easily be obtained by simple proportion between the results of two tables.

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* The M. Pass time is given in the 'Indian Ephemeris.'

† Approximate values of C, the ascensional difference, are however readily available from a table given in the Indian Ephemeris.'

Distance between the houses according to the Semi-arc system

Sid. Time		Latitude 0°					Latitude 7° N					Latitude 13° N				
h	*m*	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd
0	0	32°·2	29°·9	27°·9	27°·9	29°·9	32°·7	31°·1	29°·0	26°·8	28°·8	33°·2	32°·2	29°·9	25°·7	27°·8
0	30	31·8	29·2	27·7	28·2	30·6	32·4	30·5	28·7	27·0	29·4	33·0	31·5	29·5	25·9	28·4
1	0	31·2	28·7	27·6	28·7	31·2	32·0	29·9	28·5	27·4	30·0	32·6	30·8	29·2	26·3	29·1
1	30	30·6	28·2	27·7	29·2	31·8	31·4	29·4	28·4	27·9	30·6	32·1	30·3	29·0	26·7	29·7
2	0	29·9	27·9	27·9	29·9	32·2	30·7	28·9	28·5	28·5	31·2	31·5	29·8	28·9	27·3	30·3
2	30	29·3	27·7	28·2	30·6	32·5	30·2	28·6	28·7	29·1	31·5	31·0	29·5	29·0	27·8	30·7
3	0	28·7	27·6	28·7	31·2	32·6	29·6	28·5	29·0	29·7	31·7	30·5	29·3	29·1	28·4	31·0
3	30	28·3	27·7	29·2	31·8	32·5	29·2	28·5	29·4	30·2	31·8	30·0	29·2	29·3	28·9	31·2
4	0	27·9	27·9	29·9	32·2	32·2	28·8	28·6	29·8	30·7	31·7	29·7	29·2	29·6	29·4	31·2
4	30	27·7	28·2	30·6	32·5	31·8	28·6	28·9	30·2	31·0	31·4	29·4	29·4	29·8	29·8	31·1
5	0	27·6	28·7	31·2	32·6	31·2	28·5	29·2	30·6	31·2	31·0	29·3	29·6	30·1	30·1	30·9
5	30	27·7	29·2	31·7	32·5	30·6	28·6	29·6	30·9	31·3	30·6	29·3	29·9	30·2	30·2	30·6
6	0	27·9	29·9	32·2	32·2	29·9	28·7	30·1	31·2	31·2	30·1	29·5	30·2	30·3	30·3	30·2
6	30	28·3	30·6	32·5	31·7	29·2	29·0	30·6	31·3	30·9	29·6	29·8	30·6	30·2	30·2	29·9
7	0	28·7	31·2	32·6	31·2	28·7	29·5	31·0	31·2	30·6	29·2	30·0	30·9	30·1	30·1	29·6
7	30	29·2	31·8	32·5	30·6	28·2	29·9	31·4	31·0	30·2	28·9	30·5	31·1	29·8	29·8	29·4
8	0	29·9	32·2	32·2	29·9	27·9	30·4	31·7	30·7	29·8	28·6	30·9	31·2	29·4	29·6	29·2
8	30	30·5	32·5	31·8	29·2	27·7	30·9	31·8	30·2	29·4	28·5	31·4	31·2	28·9	29·3	29·2
9	0	31·2	32·6	31·2	28·7	27·6	31·5	31·7	29·7	29·0	28·5	31·7	31·0	28·4	29·1	29·3
9	30	31·7	32·5	30·6	28·2	27·7	31·9	31·5	29·1	28·7	28·6	32·0	30·7	27·8	29·0	29·5
10	0	32·2	32·2	29·9	27·9	27·9	32·2	31·2	28·5	28·5	28·9	32·2	30·3	27·3	28·9	29·8
10	30	32·5	31·8	29·2	27·7	28·2	32·3	30·6	27·9	28·4	29·4	32·2	29·7	26·7	29·0	30·3
11	0	32·6	31·2	28·7	27·6	28·7	32·2	30·0	27·4	28·5	29·9	32·0	29·1	26·3	29·2	30·8
11	30	32·5	30·6	28·2	27·7	29·2	32·0	29·4	27·0	28·7	30·5	31·7	28·4	25·9	29·5	31·5
12	0	32·2	29·9	27·9	27·9	29·9	31·6	28·8	26·8	29·0	31·1	31·2	27·8	25·7	29·9	32·2
12	30	31·8	29·2	27·7	28·2	30·6	31·2	28·2	26·6	29·4	31·7	30·6	27·2	25·7	30·4	32·8
13	0	31·2	28·7	27·6	28·7	31·2	30·5	27·5	26·7	30·0	32·4	29·9	26·7	25·8	31·1	33·5
13	30	29·6	28·2	27·7	29·2	31·8	29·8	27·2	26·8	30·6	32·9	29·2	26·3	26·0	31·9	33·9
14	0	29·9	27·9	27·9	29·9	32·2	29·1	26·9	27·2	31·4	33·3	28·3	26·0	26·5	32·8	34·3
14	30	29·3	27·7	28·2	30·6	32·5	28·4	26·7	27·7	32·1	33·5	27·7	25·8	27·0	33·5	34·4
15	0	28·7	27·6	28·7	31·2	32·6	27·8	26·7	28·3	32·8	33·4	27·0	25·8	27·9	34·4	34·3
15	30	28·3	27·7	29·2	31·8	32·5	27·4	26·8	29·0	33·4	33·2	26·5	26·0	28·8	35·0	33·9
16	0	27·9	27·9	29·9	32·2	32·2	27·0	27·1	30·0	33·8	32·7	26·2	26·4	29·9	35·4	33·2
16	30	27·7	28·2	30·6	32·5	31·8	26·8	27·5	30·8	34·1	32·1	26·0	26·9	31·0	35·6	32·4
17	0	27·6	28·7	31·2	32·6	31·2	26·7	28·2	31·8	34·0	31·3	25·9	27·6	32·2	35·5	31·4
17	30	27·7	29·2	31·7	32·5	30·6	26·8	28·8	32·5	33·8	30·6	26·0	28·4	33·3	35·1	30·5
18	0	27·9	29·9	32·2	32·2	29·9	27·1	29·7	33·3	33·3	29·7	26·3	29·4	34·3	34·3	29·4
18	30	28·3	30·6	32·5	31·7	29·2	27·5	30·6	33·8	32·5	28·8	26·7	30·5	35·1	33·3	28·4
19	0	28·7	31·2	32·6	31·2	28·7	28·0	31·3	34·0	31·8	28·2	27·4	31·4	35·5	32·2	27·6
19	30	29·2	31·8	32·5	30·6	28·2	28·7	32·1	34·1	30·8	27·5	28·1	32·4	35·6	31·0	26·9
20	0	29·9	32·2	32·2	29·9	27·9	29·4	32·7	33·8	30·0	27·1	28·9	33·2	35·4	29·9	26·4
20	30	30·5	32·5	31·8	29·2	27·7	30·2	33·2	33·4	29·0	26·8	29·8	33·9	35·0	28·8	26·0
21	0	31·2	32·6	31·2	28·7	27·6	31·0	33·4	32·8	28·3	26·7	30·6	34·3	34·4	27·9	25·8
21	30	31·7	32·5	30·6	28·2	27·7	31·6	33·5	32·1	27·7	26·7	31·6	34·4	33·5	27·0	25·8
22	0	32·2	32·2	29·9	27·9	27·9	32·1	33·3	31·4	27·2	26·9	32·1	34·3	32·8	26·5	26·0
22	30	32·5	31·8	29·2	27·7	28·2	32·7	32·9	30·6	26·8	27·2	32·7	33·9	31·9	26·0	26·3
23	0	32·6	31·2	28·7	27·6	28·7	32·9	32·4	30·0	26·7	27·5	33·0	33·5	31·1	25·8	26·7
23	30	32·5	30·6	28·2	27·7	29·2	32·9	31·7	29·4	26·6	28·2	33·3	32·8	30·4	25·7	27·2
24	0	32·2	29·9	27·9	27·9	29·9	32·7	31·1	29·0	26·8	28·8	33·2	32·2	29·9	25·7	27·8

Distance between the houses according to the Semi-arc system

Sid. Time	Latitude 19° N					Latitude 28° N					Latitude 25° 19′ N				
	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd
h m	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0 0	33·7	33·3	30·8	24·6	26·8	34·1	34·1	31·4	23·8	26·1	34	35	32	23	26
0 30	33·6	32·5	30·2	24·8	27·5	34·0	33·4	30·7	24·0	26·8	34	34	31	24	26
1 0	33·3	31·9	29·8	25·1	28·2	33·8	32·6	30·2	24·3	27·5	34	33	31	23	27
1 30	32·9	31·3	29·5	25·5	28·8	33·4	32·0	29·8	24·7	28·2	34	32	30	24	28
2 0	32·3	30·7	29·3	26·0	29·5	32·9	31·4	29·5	25·2	28·9	33	32	30	24	29
2 30	31·8	30·3	29·2	26·6	30·0	32·4	30·9	29·3	25·7	29·4	33	31	29	26	29
3 0	31·3	30·0	29·2	27·2	30·4	31·9	30·5	29·2	26·3	29·9	32	31	29	26	30
3 30	30·9	29·9	29·3	27·7	30·6	31·5	30·3	29·2	26·9	30·2	32	31	29	26	30
4 0	30·6	29·8	29·3	28·2	30·8	31·1	30·2	29·1	27·4	30·4	32	30	29	27	30
4 30	30·3	29·9	29·4	28·6	30·8	30·9	30·2	29·1	27·9	30·5	31	31	29	27	30
5 0	30·1	30·1	29·5	29·0	30·7	30·7	30·2	29·1	28·3	30·6	31	31	28	28	31
5 30	30·1	30·2	29·5	29·3	30·5	30·7	30·3	29·0	28·6	30·5	31	31	28	28	31
6 0	30·2	30·3	29·4	29·4	30·3	30·7	30·4	28·9	28·9	30·4	31	31	28	28	31
6 30	30·4	30·5	29·3	29·5	30·2	30·9	30·5	28·6	29·0	30·3	31	31	28	28	31
7 0	30·7	30·7	29·0	29·5	30·0	31·1	30·6	28·3	29·1	30·2	31	31	28	28	31
7 30	31·0	30·8	28·6	29·4	29·9	31·4	30·5	27·9	29·1	30·2	32	30	27	29	31
8 0	31·3	30·8	28·2	29·3	29·8	31·8	30·4	27·4	29·1	30·2	32	30	27	29	30
8 30	31·6	30·6	27·7	29·3	29.9	31·9	30·2	26·9	29·2	30·3	32	30	26	29	31
9 0	31·9	30·4	27·2	29·2	30·0	32·2	29·9	26·3	29·2	30·5	32	30	26	29	31
9 30	32·1	30·0	26·6	29·2	30·3	32·3	29·4	25·7	29·3	30·9	32	29	26	29	31
10 0	32.2	29·5	26·0	29·3	30·7	32·1	28·9	25·2	29·5	31·4	32	29	24	30	32
10 30	32·0	28·8	25·5	29·5	31·3	31·9	28·2	24·7	29·8	32·0	32	28	24	30	32
11 0	31·7	28·2	25·1	29·8	31·9	31·6	27·5	24·3	30·2	32·6	32	27	23	31	33
11 30	31·4	27·5	24·8	30·2	32·5	31·1	26·8	24·0	30·7	33·4	31	26	24	31	34
12 0	30·8	26·8	24·6	30·8	33·3	30·5	26·1	23·8	31·4	34·1	30	26	23	32	35
12 30	30·1	26·2	24·6	31·4	34·0	29·7	25·6	23·8	32·1	34·8	29	25	24	32	36
13 0	29·3	25·7	24·7	32·3	34·6	28·8	25·0	24·0	33·1	35·5	29	24	24	33	36
13 30	28·5	25·3	25·0	33·2	35·2	28·0	24·6	24·3	34·1	36·0	28	24	24	34	37
14 0	27·3	25·0	25·6	34·2	35·4	27·1	24·3	24·9	35·2	36·3	27	23	25	36	37
14 30	26·9	24·9	26·3	35·1	35·4	26·3	24·2	25·7	36·3	36·2	26	23	26	37	37
15 0	26·2	24·9	27·3	36·1	35·2	25·6	24·3	26·8	37·3	35·8	25	24	27	37	37
15 30	25·7	25·2	28·4	36·8	34·6	25·1	24·5	28·1	38·1	35·2	25	24	28	39	35
16 0	25·3	25·6	29·8	37·3	33·7	24·7	25·0	29·6	38·6	34·1	24	25	29	40	34
16 30	25·1	26·2	31·1	37·4	32·8	24·6	25·6	31·2	38·7	32·9	24	25	32	39	33
17 0	25·1	27·0	32·7	37·1	31·5	24·4	25·6	33·0	38·4	31·6	24	26	33	40	31
17 30	25·2	28·0	34·0	36·5	30·3	24·6	27·6	34·7	37·5	30·2	24	27	35	38	30
18 0	25·5	29·1	35·4	35·4	29·1	24·9	28·8	36·3	36·3	28·8	25	28	37	37	28
18 30	26·0	30·3	36·5	34·0	28·0	25·4	30·2	37·5	34·7	27·6	25	30	38	36	27
19 0	26·6	31·5	37·1	32·7	27·0	26·0	31·6	38·4	33·0	26·6	26	31	40	33	26
19 30	27·4	32·8	37·4	31·1	26·2	27·0	32·9	38·7	31·2	25·6	27	33	39	32	25
20 0	28·3	33·7	37·3	29·8	25·6	[illegible]	34·1	38·6	29·6	25·0	28	34	40	29	25
20 30	29·3	34·6	36·8	28·4	25·2	29·0	35·2	38·1	28·1	24·5	29	35	39	28	24
21 0	30·3	35·2	36·1	27·3	24·9	30·2	35·8	37·3	26·8	24·3	30	37	37	27	24
21 30	31·4	35·4	35·1	26·3	24·9	31·3	36·2	36·3	25·7	24·2	31	37	37	26	23
22 0	32·5	35·4	34·2	25·6	25·0	32·2	36·3	35·2	24·9	24·3	32	37	36	25	23
22 30	32·9	35·1	33·2	25·0	25·3	33·0	36·0	31·1	24·3	24·6	33	37	34	24	24
23 0	33·4	34·6	32·3	24·7	25·7	33·6	35·5	33·1	24·0	25·0	34	36	33	24	24
23 30	33·7	34·0	31·4	24·6	26·2	34·0	34·8	32·1	23·8	25·6	34	36	32	24	25
24 0	33·7	33·3	30·8	24·6	26·8	34·1	34·1	31·4	23·8	26·1	34	35	32	23	26

Distance between the houses according to the Semi-arc system

Sid. Time		10th House			Latitude 35° N					Latitude 35° N					Latitude 40° N				
		Sayana	Nirayana		10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd
h	m	°	s	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0	0	0·0	11	7·0	35	35	32	23	25	36	37	33	21	24	36	39	33	20	23
0	30	8·2	11	15·2	35	35	31	23	26	37	35	32	22	24	37	37	32	20	24
1	0	16·3	11	23·3	35	34	31	23	27	37	34	31	22	25	37	36	31	21	24
1	30	24·3	0	1·3	34	33	30	24	27	36	34	30	23	26	36	36	30	21	25
2	0	32·2	0	9·2	34	32	30	24	28	36	33	29	23	27	36	34	30	22	26
2	30	39·9	0	16·9	33	32	29	25	29	35	33	29	23	28	36	33	29	22	27
3	0	47·5	0	24·5	33	31	29	25	29	35	32	29	24	28	35	33	29	22	28
3	30	54·8	1	1·8	32	31	29	26	30	35	31	29	24	29	35	32	28	23	29
4	0	62·1	1	9·1	32	31	29	26	30	34	31	28	26	29	34	32	28	24	29
4	30	69·2	1	16·2	32	31	29	27	30	34	31	27	27	29	34	31	28	24	30
5	0	76·2	1	23·2	32	31	29	27	30	34	30	27	28	29	34	31	27	25	30
5	30	83·1	2	0·1	31	30	28	28	30	34	30	27	27	30	34	30	27	26	30
6	0	90·0	2	7·0	31	30	28	28	30	33	30	27	27	30	33	31	26	26	31
6	30	96·9	2	13·9	32	30	28	28	30	32	30	27	27	30	33	30	26	27	30
7	0	103·8	2	20·8	32	30	27	29	31	32	29	28	27	30	33	30	25	27	31
7	30	110·8	2	27·8	32	30	27	29	31	32	29	27	27	31	33	30	24	28	31
8	0	117·9	3	4·9	32	30	26	29	31	32	29	26	28	31	33	29	24	28	32
8	30	125·2	3	12·2	32	30	26	29	31	32	29	24	29	31	33	29	23	28	32
9	0	132·5	3	19·5	32	29	25	29	31	32	28	24	29	32	33	28	22	29	33
9	30	140·1	3	27·1	32	29	25	29	32	32	28	23	29	33	33	27	22	29	33
10	0	147·8	4	4·8	32	28	24	30	32	32	27	23	29	33	32	26	22	30	34
10	30	155·7	4	12·7	32	27	24	30	33	31	26	23	30	34	32	25	21	30	35
11	0	163·7	4	20·7	31	27	23	31	34	31	25	22	31	34	31	24	21	31	36
11	30	171·8	4	28·8	31	26	23	31	35	30	24	22	32	35	30	24	20	32	37
12	0	180·0	5	7·0	30	25	23	32	35	29	24	21	33	37	29	23	20	33	39
12	30	188·2	5	15·2	29	25	23	33	36	28	24	21	34	37	28	22	20	35	39
13	0	196·3	5	23·3	28	24	23	34	37	28	23	21	35	38	27	21	20	37	40
13	30	204·3	6	1·3	27	24	23	35	37	27	22	21	37	39	26	21	20	38	41
14	0	212·2	6	9·2	26	23	24	37	37	26	21	23	38	39	24	21	21	41	41
14	30	219·9	6	16·9	26	23	25	38	37	24	22	23	40	40	23	21	22	43	40
15	0	227·5	6	24·5	25	23	26	39	37	24	22	25	42	39	23	20	24	44	40
15	30	234·8	7	1·8	24	24	28	40	36	23	22	26	44	38	22	21	25	46	39
16	0	242·1	7	9·1	24	24	29	41	35	22	23	29	44	35	21	22	28	47	36
16	30	249·2	7	16·2	24	25	31	41	33	22	24	31	45	34	21	23	30	47	34
17	0	256·2	7	23·2	24	26	33	40	32	22	25	34	44	32	21	24	34	46	32
17	30	263·1	8	0·1	24	27	35	39	30	23	26	37	43	29	21	25	38	44	29
18	0	270·0	8	7·0	24	28	37	37	28	23	27	40	40	27	22	27	41	41	27
18	30	276·9	8	13·9	25	30	39	35	27	22	29	43	37	26	23	29	44	38	25
19	0	283·8	8	20·8	25	32	40	33	26	23	32	44	34	25	23	32	46	34	24
19	30	290·8	8	27·8	26	33	41	31	25	24	34	45	31	24	25	34	47	31	23
20	0	297·9	9	4·9	28	35	41	29	24	27	35	44	29	23	26	36	47	28	22
20	30	305·2	9	12·2	29	36	40	28	24	27	38	44	26	22	27	39	46	25	21
21	0	312·5	9	19·5	30	37	39	26	23	28	39	42	25	22	29	40	44	24	20
21	30	320·1	9	27·1	31	37	38	25	23	31	40	40	23	22	31	40	43	22	21
22	0	327·8	10	4·8	32	37	37	24	23	33	39	38	23	21	32	41	41	21	21
22	30	335·7	10	12·7	33	37	35	23	24	34	39	37	21	22	34	41	38	20	21
23	0	343·7	10	20·7	34	37	34	23	24	35	38	35	21	23	35	40	37	20	21
23	30	351·8	10	28·8	34	36	33	23	25	36	37	34	21	24	36	39	35	20	22
24	0	360·0	11	7·0	35	35	32	23	25	36	37	33	21	24	36	39	33	20	23

Distance between the houses according to the Semi-arc system

Sid. Time	10th House		Latitude 45°					Latitude 51° 32′ N					Latitude 60° N				
	Sayana	Nirayana	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc-2n	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2n-rd
h m	°	s °	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0 0	0·0	11 7·0	37	41	34	18	22	39	43	35	15	21	43	49	33	13	17
0 30	8·2	11 15·2	38	39	32	19	23	39	42	33	16	21	44	47	30	14	18
1 0	16·3	11 23·3	38	38	31	19	23	39	41	31	17	22	45	44	29	14	19
1 30	24·3	0 1·3	38	36	31	19	25	39	39	30	18	23	45	41	28	15	20
2 0	32·2	0 9·2	37	36	29	21	25	39	38	29	18	24	45	39	27	16	21
2 30	39·9	0 16·9	37	34	29	21	26	39	36	28	19	25	44	38	26	16	22
3 0	47·5	0 24·5	37	33	29	21	27	39	34	28	20	25	44	36	25	17	23
3 30	54·8	1 1·8	36	33	28	22	27	38	34	27	20	27	43	34	25	18	24
4 0	62·1	1 9·1	36	32	27	23	28	38	32	27	21	27	42	34	23	19	25
4 30	69·2	1 16·2	35	32	27	23	29	37	32	26	22	28	42	32	23	19	27
5 0	76·2	1 23·2	35	31	26	25	29	37	31	25	23	29	41	31	23	19	28
5 30	83·1	2 0·1	35	30	26	25	30	36	31	25	23	29	40	30	22	21	28
6 0	90·0	2 7·0	34	31	25	25	31	36	30	24	24	30	40	29	21	21	29
6 30	96·9	2 13·9	34	30	25	26	30	36	29	23	25	31	39	28	21	22	30
7 0	103·8	2 20·8	34	29	25	26	31	35	29	23	25	31	38	28	19	23	31
7 30	110·8	2 27·8	34	29	23	27	32	35	28	22	26	32	37	27	19	23	32
8 0	117·9	3 4·9	34	28	23	27	32	35	27	21	27	32	37	25	19	23	34
8 30	125·2	3 12·2	34	27	22	28	33	34	27	20	27	34	36	24	18	25	34
9 0	132·5	3 19·5	33	27	21	29	33	34	25	20	28	34	35	23	17	25	36
9 30	140·1	3 27·1	33	26	21	29	34	33	25	19	28	36	34	22	16	26	38
10 0	147·8	4 4·8	32	25	21	29	36	32	24	18	29	38	32	21	16	27	39
10 30	155·7	4 12·7	31	25	19	31	36	31	23	18	30	39	31	20	15	28	41
11 0	163·7	4 20·7	31	23	19	31	38	30	22	17	31	41	29	19	14	29	44
11 30	171·8	4 28·8	29	23	19	32	39	29	21	16	33	42	27	18	14	30	47
12 0	180·0	5 7·0	28	22	18	34	41	27	21	15	35	43	25	17	13	33	49
12 30	188·2	5 15·2	27	21	18	36	42	26	19	16	37	44	24	16	12	35	52
13 0	196·3	5 23·3	26	20	18	38	43	25	18	16	39	46	22	15	12	37	55
13 30	204·3	6 1·3	25	19	19	40	43	23	18	16	41	48	20	14	12	41	57
14 0	212·2	6 9·2	23	20	19	42	44	22	17	16	45	48	18	14	11	45	60
14 30	219·9	6 16·9	22	19	21	45	43	21	17	16	49	47	17	12	12	52	58
15 0	227·5	6 24·5	21	20	21	48	41	20	17	17	53	45	15	13	11	60	56
15 30	234·8	7 1·8	21	19	24	50	39	19	17	20	56	42	14	12	13	69	50
16 0	242·1	7 9·1	20	20	26	52	37	18	18	22	60	39	13	13	14	78	43
16 30	249·2	7 16·2	20	21	29	52	34	18	19	26	60	35	13	13	17	85	35
17 0	256·2	7 23·2	20	22	34	50	32	18	20	32	59	31	13	13	25	86	28
17 30	263·1	8 0·1	20	24	39	47	29	18	23	38	55	27	13	15	38	78	22
18 0	270·0	8 7·0	20	26	44	44	26	18	25	47	47	24	13	18	59	59	18
18 30	276·9	8 13·9	21	29	47	39	24	19	27	55	38	23	14	22	78	38	15
19 0	283·8	8 20·8	22	32	50	34	22	20	31	59	32	20	15	28	86	25	13
19 30	290·8	8 27·8	24	34	52	29	21	22	35	60	26	19	17	35	85	17	13
20 0	297·9	9 4·9	25	37	52	26	20	23	39	60	22	18	19	43	78	14	13
20 30	305·2	9 12·2	27	39	50	24	19	26	42	56	20	17	22	50	69	13	12
21 0	312·5	9 19·5	29	41	48	21	20	28	45	53	17	17	25	56	60	11	13
21 30	320·1	9 27·1	30	43	45	21	19	30	47	49	16	17	29	58	52	12	12
22 0	327·8	10 4·8	32	44	42	19	20	32	48	45	16	17	32	60	45	11	14
22 30	335·7	10 12·7	34	43	40	19	19	34	48	41	16	18	36	57	41	12	14
23 0	343·7	10 20·7	35	43	38	18	20	36	46	39	16	18	39	55	37	12	15
23 30	351·8	10 28·8	36	42	36	18	21	38	44	37	16	19	41	52	35	12	16
24 0	360·0	11 7·0	37	41	34	18	22	39	43	35	15	21	43	49	33	13	17

Construction of the Tables

The tables of the different houses on the Placidian system can be constructed in the following way. Take any degree of longitude and call it *A*; find *D*, the declination of that point, and also *B* corresponding to *A* (from the table on page 34). Using the values of *D* and φ, find *C* and ascertain the semi-diurnal arc (=S.D.A.). Now the point *A* becomes the cusp of the different houses at the moments of the following sidereal time :—

10th house at S.T.=*B*, 11th house at S.T.=*B*−⅓(S.D.A.).
12th house at S.T.=*B*−⅔ (S.D.A.), 1st house at S.T.=*B*−S.D.A.
2nd house at S.T.=*B*−⅔ (S.D.A.)−4*h*.
3rd house at S.T.=*B*=⅓ (S.D.A.)−8*h*.

In this way we get the different values of sidereal time for a particular degree of the ecliptic becoming the cusp of the different houses. These values can be reversed and re-arranged in a tabular form (as in the usual tables of houses) placing all the cusps together against a given value of the sidereal time, after making small proportional changes where necessary.

It will be observed that for all latitude the cusp of the 2nd house becomes exactly the 12th house just after 4 hours of sidereal time, and similarly the 3rd house becomes the 11th house after 8 hours of sidereal time. Hence the 2nd and 3rd houses, which are repetitions of the 12th and the 11th houses, need not separately be calculated for the purpose of this table.

The following is a simple and appoximate method of constructing the tables. Although the values of the cusps obtained in this method are not exact, yet the error is small and does not exceed a degree

Lat. of place	*Reduced Lat.*		Lat. of place	*Reduced Lat.*		Lat. of place	*Reduced Lat.*	
	xii or ii House	xi or iii House		xii or ii House	xi or iii House		xii or ii House	xi or iii Hours
0°	0° 0′	0° 0′	21°	14° 24′	7° 20′	41°	30° 25′	16° 30′
1	0 39	0 21	22	15 7	7 42	42	31 18	17 3
2	1 21	0 39	22 35′	15 32	7 55	43	32 16	17 41
3	2 0	1 0	23	15 50	8 5	44	33 12	18 18
4	2 41	1 21	24	16 36	8 30	45	34 10	18 57
5	3 20	1 41	25	17 18	8 52	46	35 7	19 35
6	4 2	2 0	26	18 3	9 17	47	36 7	20 17
7	4 41	2 20	27	18 48	9 42	48	37 9	21 1
8	5 23	2 41	28	19 37	10 8	49	38 9	21 44
9	6 4	3 2	29	20 25	10 34	50	39 12	22 31
10	6 43	3 23	30	21 9	10 59	51	40 18	23 22
11	7 24	3 43	31	21 56	11 26	51 32′	40 52	23 48
12	8 5	4 4	32	22 46	11 54	52	41 22	24 10
13	8 45	4 24	33	23 33	12 21	53	42 31	25 5
14	9 26	4 45	34	24 22	12 49	54	43 37	26 0
15	10 10	5 8	35	25 10	13 17	55	44 48	26 51
16	10 50	5 28	36	26 1	13 48	56	45 58	27 59
17	11 30	5 49	37	26 52	14 18	57	47 11	29 5
18	12 14	6 12	38	27 45	14 50	58	48 26	30 14
19	12 58	6 34	39	28 37	15 22	59	49 43	31 28
20	13 41	6 57	40	29 32	15 56	60	51 3	32 47

Find from the above table the reduced latitude (or polar elevation) for the house of which the cusp is required. Then make the following modification of the given sidereal time of the moment according to the house required.

For XI House −4 hours. For XII House −2 hours.
„ II „ +2 „ „ III „ +4 „

Now using the tables of ascendants for the reduced latitude as obtained above, find the ascendant corresponding to the above mentioned modified sidereal time. Then this ascendant will be the cusp of the house required.

(4) Regiomontanus's & (5) Campanus's Systems

In these two systems the celestial sphere is divided into twelve divisions by great circles, all passing through the North and South points of the horizon. In the system of Regiomontanus these circles intersect the celestial equator at equal distances viz., 30° degrees and in the Campanus's system the prime vertical (the great circle passing through the East and West points of the horizon and the Zenith of the place) is equally divided by these circles. These dividing great circles intersect the ecliptic at points which are called the cusps of the houses. The division commences from the horizon, and the meridian is also one of the dividing circles Consequently the ascendant, descendant, the M.C. and the I.C. are the same in these cases also as in other systems of division.

The excellence of the Campanus's system lies in the fact that it divides the celestial sphere into tweleve *equal* divisions. The angles contained between the dividing circles at their common meeting points (viz., the north and the south cardinal points) are all equal. In the system of Regiomontanus, however, these subtended angles are not all equal. But even then, in consideration of other factors this latter system of division has been approved by many and termed as the rational method *(modus rationalis)*.

For the purpose of ascertaining the cusps of the different houses according to these two systems, a table is given below showing the 'reduced latitude' (or polar elevation) and the reductions to the sidereal time for different houses at each degree of latitude from 0° to 60° North. Using the tables of ascendants for the above 'reduced latitude' find the ascendant corresponding to the corrected sidereal time for the house concerned, and this will be the exact value of the cusp of the required house.

Another table is given on page 97 showing the distance between the houses according to the systems of Regiomontanus and of Campanus calculated for latitude 22° 35′ North. For other latitudes the houses can easily be calculated by the above method.

SIDEREAL TIME CORRECRION AND REDUCED LATITUDE (POLAR ELEVATION) FOR DIFFERENT HOUSES

Lat. of place (N)	REGIOMONTANUS				CAMPANUS			
	12th & 2nd Houses		11th & 3rd Houses		12th & 2nd Houses		11th & 3rd Houses	
	Corr. to Sid. time 12th (−) 2nd (+)	Reded. Latitude	Corr. to Sid. time 11th (−) 3rd (+)	Redcd. Latitude	Corr. to Sid. time 12th (−), 2nd (+)	Redcd. Latitude	Corr. to Sid. time 11th(−), 3rd (+)	Redcd. Latitude
°	h m s	° ′	h m s	° ′	h m s	° ′	h m s	° ′
0	2 0 0	0 0	4 0 0	0 0	2 0 0	0 0	4 0 0	0 0
2	2 0 0	1 44	4 0 0	1 0	2 0 4	1 44	4 0 4	1 0
4	2 0 0	3 28	4 0 0	2 0	2 0 16	3 28	4 0 16	2 0
6	2 0 0	5 13	4 0 0	3 0	2 0 32	5 12	4 0 32	3 0
7	2 0 0	6 5	4 0 0	3 30	2 0	6 4	4 0 44	3 30
8	2 0 0	6 57	4 0 0	4 1	2 1 0	6 56	4 1 0	4 0
10	2 0 0	8 41	4 0 0	5 2	2 1 32	8 39	4 1 32	4 59
12	2 0 0	10 26	4 0 0	6 4	2 2 12	10 22	4 2 12	5 58
13	2 0 0	11 19	4 0 0	6 35	2 2 36	11 14	4 2 36	6 28
14	2 0 0	12 11	4 0 0	7 6	2 3 0	12 6	4 3 0	6 57
15	2 0 0	13 4	4 0 0	7 38	2 3 28	12 57	4 3 24	7 26
16	2 0 0	13 57	4 0 0	8 9	2 3 56	13 49	4 3 52	7 56
17	2 0 0	14 50	4 0 0	8 41	2 4 28	14 40	4 4 24	8 25
18	2 0 0	15 44	4 0 0	9 14	2 5 4	15 32	4 4 56	8 54
19	2 0 0	16 37	4 0 0	9 46	2 5 40	16 23	4 5 28	9 23
20	2 0 0	17 30	4 0 0	10 19	2 6 16	17 14	4 6 4	9 51
21	2 0 0	18 23	4 0 0	10 52	2 6 56	18 5	4 6 40	10 20
22	2 0 0	19 17	4 0 0	11 25	2 7 40	18 56	4 7 20	10 48
22 35′	2 0 0	19 48	4 0 0	11 45	2 8 7	19 26	4 7 47	11 4
23	2 0 0	20 11	4 0 0	11 58	2 8 24	19 47	4 8 4	11 16
24	2 0 0	21 5	4 0 0	12 32	2 9 12	20 37	4 8 44	11 44
25	2 0 0	21 59	4 0 0	13 7	2 10 0	21 28	4 9 32	12 12
26	2 0 0	22 53	4 0 0	13 41	2 10 52	22 19	4 10 16	12 40
27	2 0 0	23 48	4 0 0	14 16	2 11 48	23 10	4 11 8	13 8
28	2 0 0	24 43	4 0 0	14 53	2 12 44	24 0	4 11 56	13 35
29	2 0 0	25 38	4 0 0	15 29	2 13 44	24 50	4 12 48	14 2
30	2 0 0	26 34	4 0 0	16 6	2 14 44	25 40	4 13 44	14 29
31	2 0 0	27 29	4 0 0	16 43	2 15 52	26 30	4 14 40	14 56
32	2 0 0	28 25	4 0 0	17 20	2 17 0	27 20	4 15 40	15 23
33	2 0 0	29 21	4 0 0	17 59	2 18 12	28 9	4 16 40	15 49
34	2 0 0	30 17	4 0 0	18 38	2 19 24	28 58	4 17 40	16 15
35	2 0 0	31 14	4 0 0	19 18	2 20 44	29 47	4 18 44	16 40
36	2 0 0	32 10	4 0 0	19 57	2 22 4	30 37	4 19 52	17 6
38	2 0 0	34 4	4 0 0	21 20	2 24 56	32 14	4 22 8	17 57
40	2 0 0	36 0	4 0 0	22 46	2 28 0	33 50	4 24 32	18 45
42	2 0 0	37 56	4 0 0	24 13	2 31 24	35 26	4 27 8	19 33
44	2 0 0	39 53	4 0 0	25 46	2 35 0	37 0	4 29 48	20 20
45	2 0 0	40 54	4 0 0	26 34	2 36 56	37 46	4 31 12	20 42
46	2 0 0	41 53	4 0 0	27 21	2 38 56	38 33	4 32 36	21 5
47	2 0 0	42 53	4 0 0	28 12	2 41 0	39 19	4 34 0	21 27
48	2 0 0	43 53	4 0 0	29 3	2 43 8	40 5	4 35 32	21 49
49	2 0 0	44 53	4 0 0	29 53	2 45 24	40 50	4 37 0	22 10
50	2 0 0	45 54	4 0 0	30 47	2 47 44	41 34	4 38 32	22 31
51	2 0 0	46 55	4 0 0	31 42	2 50 8	42 19	4 40 8	22 52
51 32′	2 0 0	47 27	4 0 0	32 12	2 51 28	42 42	4 41 0	23 3
52	2 0 0	47 56	4 0 0	32 37	2 52 40	43 3	4 41 44	23 13
53	2 0 0	48 58	4 0 0	33 34	2 55 16	43 45	4 43 20	23 33
54	2 0 0	50 0	4 0 0	34 31	2 57 56	44 29	4 45 0	23 52
56	2 0 0	52 5	4 0 0	36 33	3 3 40	45 54	4 48 24	24 30
58	2 0 0	54 11	4 0 0	38 40	3 9 48	47 17	4 51 56	25 7
60	2 0 0	56 19	4 0 0	40 54	3 16 24	48 35	4 55 36	25 40

Distance between the Houses according to the system of Regiomontanus and Campanus
(Calculated for latitude 22° 35′ N)

Sid. Time		10th House			Regiomontanus					Campanus				
		Sayana	Nirayana		10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd	10th-11th	11th-12th	12th-Asc.	Asc.-2nd	2nd-3rd
h	m	°	s	°	°	°	°	°	°	°	°	°	°	°
0	0	0·0	11	7·0	35.0	35·0	29·4	25·5	25·5	32·6	35·2	31·6	27·1	25·6
0	30	8·2	11	15·2	35·1	34·0	28·8	25·6	26·1	32·7	34·3	30·0	27·2	26·3
1	0	16·3	11	23·3	35·1	33·0	28·2	25·7	26·8	32·7	33·5	30·2	27·3	27·0
1	30	24·3	0	1·3	34·8	32·3	27·9	25·9	27·4	32·4	32·7	29·9	27·6	27·6
2	0	32·2	0	9·2	34·5	31·6	27·5	26·2	28·0	32·1	31·9	29·6	27·9	28·3
2	30	39·9	0	16·9	34·0	31·1	27·4	26·6	28·5	31·7	31·4	29·5	28·3	28·8
3	0	47·5	0	24·5	33·5	30·6	27·4	26·9	29·0	31·3	30·9	29·4	28·7	29·3
3	30	54·8	1	1·8	33·2	30·3	27·5	27·2	29·3	30·9	30·6	29·5	29·1	29·6
4	0	62·1	1	9·1	32·8	30·0	27·6	27·5	29·6	30·5	30·3	29·6	29·4	29·9
4	30	69·2	1	16·2	32·5	30·0	27·8	27·7	29·7	30·2	30·2	29·7	29·7	30·0
5	0	76·2	1	23·2	32·2	29·9	27·9	27·9	29·9	30·0	30·1	29·8	29·9	30·1
5	30	83·1	2	0·1	32·1	29·9	28·0	28·0	29·9	29·9	30·1	29·9	30·0	30·1
6	0	90·0	2	7·0	32·1	29·9	28·0	28·0	29·9	29·9	30·1	30·0	30·0	30·1
6	30	96·9	2	13·9	32·1	29·9	28·0	28·0	29·9	30·0	30·1	30·0	29·9	30·1
7	0	103·8	2	20·8	32·2	29·9	27·9	27·9	29·9	30·1	30·1	29·9	29·8	30·1
7	30	110·8	2	27·8	32·3	29·7	27·7	27·8	30·0	30·2	30·0	29·7	29·7	30·2
8	0	117·9	3	4·9	32·5	29·6	27·5	27·6	30·0	30·3	29·9	29·4	29·6	30·3
8	30	125·2	3	12·2	32·5	29·3	27·2	27·5	30·3	30·3	29·6	29·1	29·5	30·6
9	0	132·5	3	19·5	32·6	29·0	26·9	27·4	30·6	30·4	29·3	28·7	29·4	30·9
9	30	140·1	3	27·1	32·4	28·5	26·6	27·4	31·1	30·3	28·8	28·3	29·5	31·4
10	0	147·8	4	4·8	32·2	28·0	26·2	27·5	31·6	30·2	28·3	27·9	29·6	31·9
10	30	155·7	4	12·7	31·7	27·4	25·9	27·9	32·3	29·8	27·6	27·6	29·9	32·7
11	0	163·7	4	20·7	31·2	26·8	25·7	28·2	33·0	29·3	27·0	27·3	30·2	33·5
11	30	171·8	4	28·8	30·4	26·1	25·6	28·8	34·0	28·6	26·3	27·2	30·9	34·3
12	0	180·0	5	7·0	29·6	25·5	25·5	29·4	35·0	27·9	25·6	27·1	31·6	35·2
12	30	188·2	5	15·2	28·6	25·0	25·7	30·3	35·8	27·0	25·0	27·3	32·6	35·9
13	0	196·3	5	23·3	27·7	24·4	25·9	31·2	36·6	26·1	24·5	27·4	33·6	36·7
13	30	204·3	6	1·3	26·7	24·2	26·4	32·4	37·1	25·1	24·2	27·9	34·9	37·1
14	0	212·2	6	9·2	25·7	23·9	26·9	33·7	37·6	24·2	23·8	28·5	36·2	37·5
14	30	219·9	6	16·9	24·9	23·9	27·9	35·0	37·4	23·4	23·8	29·5	37·6	37·1
15	0	227·5	6	24·5	24·1	23·9	28·9	36·4	37·1	22·7	23·7	30·5	39·0	36·7
15	30	234·8	7	1·8	23·6	24·3	30·2	37·5	36·2	22·2	24·1	31·9	40·0	35·6
16	0	242·1	7	9·1	23·1	24·7	31·6	38·5	35·2	21·7	24·4	33·3	41·1	34·3
16	30	249·2	7	16·2	23·0	25·5	33·2	38·8	33·7	21·5	25·2	35·0	41·3	33·0
17	0	256·2	7	23·2	22·8	26·4	34·8	39·0	32·2	21·4	26·0	36·7	41·4	31·5
17	30	263·1	8	0·1	23·1	27·7	36·2	38·1	30·8	21·6	27·2	38·2	40·6	30·0
18	0	270·0	8	7·0	23·4	29·0	37·6	37·2	29·4	21·9	28·4	39·7	39·7	28·4
18	30	276·9	8	13·9	24·1	30·8	38·1	36·2	27·7	22·4	30·4	40·6	38·2	27·2
19	0	283·8	8	20·8	24·8	32·2	39·0	34·8	26·4	23·0	31·5	41·4	36·7	26·0
19	30	290·8	8	27·8	25·8	33·7	38·8	33·2	25·5	24·0	33·0	41·3	35·0	25·2
20	0	297·9	9	4·9	26·9	35·2	38·5	31·6	24·7	25·0	34·5	41·1	33·3	24·4
20	30	305·2	9	12·2	28·2	36·2	37·5	30·2	24·3	26·2	35·6	40·0	31·9	24·1
21	0	312·5	9	19·5	29·6	37·1	36·4	28·9	23·9	27·4	36·7	39·0	30·5	23·7
21	30	320·1	9	27·1	30·9	37·4	35·0	27·9	23·9	28·6	37·1	37·6	29·5	23·8
22	0	327·8	10	4·8	32·2	37·6	33·7	26·9	23·9	29·8	37·5	36·2	28·5	23·8
22	30	335·7	10	12·7	33·2	37·1	32·4	26·4	24·2	30·8	37·1	34·9	27·9	24·2
23	0	343·7	10	20·7	34·2	36·6	31·2	25·9	24·4	31·7	36·6	33·7	27·5	26·1
23	30	351·8	10	28·8	34·6	35·8	30·3	25·7	25·0	32·2	35·9	32·6	27·3	25·0
24	0	360·0	11	7·0	35·0	35·0	29·4	25·5	25·5	32·6	35·2	31·6	27·1	25·6

Ascendant for Certain Higher Latitudes

(Nirayana Lagna)

Sid. Time	Latitude of place (North)					
	60°	63°	66° 33′	69°	72°	75°
h	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
0	3 11 35	3 14 59	3 19 32	3 23 2	3 27 46	4 3 3
1	3 20 49	3 23 31	3 27 5	3 29 50	4 3 33	4 7 43
2	3 29 58	4 2 4	4 4 49	4 6 56	4 9 47	4 12 59
3	4 9 9	4 10 41	4 12 42	4 14 14	4 16 19	4 18 40
4	4 18 23	4 19 24	4 20 43	4 21 44	4 23 6	4 24 38
5	4 27 40	4 28 7	4 28 50	4 29 20	5 0 1	5 0 46
6	5 7 0	5 7 0	5 7 0	5 7 0	5 7 0	5 7 0
7	5 16 20	5 15 53	5 15 10	5 14 40	5 13 59	5 13 14
8	5 25 37	5 24 36	5 23 17	5 22 16	5 20 54	5 19 22
9	6 4 51	6 3 19	6 1 18	5 29 46	5 27 41	5 15 20
10	6 14 2	6 11 56	6 9 11	6 7 4	6 4 13	6 1 1
11	6 23 11	6 20 29	6 16 55	6 14 10	6 10 27	6 6 17
12	7 2 25	6 29 1	6 24 28	6 20 58	6 16 14	6 10 57
13	7 11 56	7 7 38	7 1 51	6 27 24	6 21 22	6 14 45
14	7 22 6	7 16 35	7 9 6	7 3 17	6 25 30	6 17 10
14-33	7 28 13	...	...	...	...	6 17 34
14-33	7 28 13	...	...	...	...	0 17 34
15	8 3 43	7 26 24	7 16 12	7 8 15	6 27 50	0 17 13
15-14	8 6 49	...	...	...	6 27 57	...
15-14	8 6 49	...	...	...	0 27 57	...
16	8 18 53	8 8 33	7 23 11	7 11 9	0 26 17	0 12 54
16-09	8 21 45	...	...	7 11 14	...	...
16-09	8 21 45	...	...	1 11 14	...	...
17	9 14 16	8 29 7	8 0 7	1 6 49	0 14 24	0 0 22
17-59	11 5 54	11 5 10	8 6 53	11 9 6	11 7 49	11 7 26
18-00	11 7 0	11 7 0	11 7 0	11 7 0	11 7 0	11 7 0
18-01	11 8 6	11 8 50	2 7 7	11 4 54	11 6 11	11 6 34
19	0 29 44	1 14 53	2 13 53	9 7 11	9 29 36	10 13 38
19-51	1 22 15	...	...	9 2 46	...	...
19-51	1 22 15	...	...	3 2 46	...	...
20	1 25 7	2 5 27	2 20 49	3 2 51	9 17 43	10 1 6
20-46	2 7 11	...	...	...	9 16 3	...
20-46	2 7 11	...	...	...	3 16 3	...
21	2 10 17	2 17 36	2 27 48	3 5 45	3 16 10	9 26 47
21-27	2 15 47	...	...	...	...	9 26 26
21-27	2 15 47	...	...	...	...	3 26 26
22	2 21 54	2 27 25	3 4 54	3 10 43	3 18 30	3 26 50
23	3 2 4	3 6 22	3 12 9	3 16 36	3 22 38	3 29 15
24	3 11 35	3 14 59	3 19 32	3 23 2	3 27 46	4 3 3

NOTE :—The table has been prepared using 23° 0′ as Ayanamsa.

At latitude 66°N33′, any point from 8s 7° 0′ to 2s 7° 0′ is the Ascendant when the sidereal time is 18*h*.

For latitudes higher than 66°N33′, the Ascendant suddenly changes by 6 signs at certain points and then decreases for some time and again changes by 6 signs and begins to increase. Certain portions of the ecliptic near 2s 7° 0′ and 8s 7° 0′ never become Lagna at such latitudes.

Sidereal Time for the Beginning of Lagnas

For Ayanamsas 23° and 24°

(Ayanamsa is 23° in 1938 and 24° in 2010 A.D.)

Lagna		Equator 0° N 0′	Madras 13° N 4	Bombay 18° N 58′	Calcutta 22°N35′	Varanasi 25° N 19′	Delhi 28° N 39′
	°	h m s	h m s	h m s	h m s	h m s	h m s
Mesha	(23)	19 25 07	19 16 45	19 12 43	19 10 06	19 08 01	19 05 23
	(24)	28 53	20 10	15 58	13 15	11 04	8 20
Vrisha	(23)	21 22 24	21 01 38	20 55 57	20 50 21	20 45 51	20 40 12
	(24)	26 30	08 24	59 40	53 59	49 26	43 42
Mithuna	(23)	23 29 31	23 06 37	22 55 32	22 48 19	22 42 31	22 35 11
	(24)	33 52	11 0	59 49	52 36	46 46	39 26
Karkata	(23)	1 39 19	1 18 24	1 08 13	1 01 38	0 56 20	0 49 38
	(24)	43 33	22 47	12 44	06 12	1 0 57	54 20
Simha	(23)	3 41 17	3 28 09	3 21 50	3 17 44	3 14 26	3 10 18
	(24)	45 15	32 27	26 17	22 16	19 05	15 09
Kanya	(23)	5 34 18	5 31 43	5 30 29	5 29 40	5 29 02	5 28 18
	(24)	37 58	35 45	34 41	34 0	33 27	32 45
Tula	(23)	7 25 07	7 33 29	7 37 31	7 40 08	7 42 13	7 44 51
	(24)	28 53	37 36	41 48	44 31	46 42	49 26
Vrischika	(23)	9 22 24	9 40 10	9 48 51	9 54 27	9 58 57	10 04 36
	(24)	26 30	44 36	53 20	59 01	10 03 34	09 18
Dhanus	(23)	11 29 31	11 52 25	12 03 30	12 10 42	12 16 31	12 23 51
	(24)	33 52	56 44	07 55	15 08	20 58	28 18
Makara	(23)	13 39 19	14 00 14	14 10 25	14 17 0	14 22 18	14 29 0
	(24)	43 33	04 19	14 22	20 54	26 09	33 46
Kumbha	(23)	15 41 17	15 54 25	16 00 44	16 04 50	16 08 08	16 12 16
	(24)	45 15	58 03	04 13	08 14	11 25	15 27
Mina	(23)	17 34 18	17 36 53	17 38 07	17 38 56	17 39 34	17 40 23
	(24)	37 58	40 11	41 15	41 56	42 29	43 11

N.B.—By adding 6 hrs. to the above Sid. time for the Fquator we get the S.T. for the beginning of the 10th House for all places.

Duration of Lagnas in Sidereal Time Interval

Lagna		Equator	Madras	Bombay	Calcutta	Varanasi	Delhi
	°	h m s	h m s	h m s	h m s	h m s	h m s
Mesha	(23)	1 57 17	1 47 53	1 43 14	1 40 15	1 37 50	1 34 49
	(24)	57 37	48 14	43 42	40 44	38 22	35 22
Vrisha	(23)	2 7 7	2 1 59	1 59 35	1 57 58	1 56 40	1 54 59
	(24)	7 22	2 36	2 0 9	58 37	57 20	55 44
Mithuna	(23)	2 9 48	2 11 47	2 12 41	2 13 19	2 13 49	2 14 27
	(24)	9 41	11 47	12 55	13 36	14 11	14 54
Karkata	(23)	2 1 58	2 9 45	2 13 37	2 16 6	2 18 6	2 20 40
	(24)	1 42	9 40	13 33	16 4	18 8	20 43
Simha	(23)	1 53 1	2 3 34	2 8 39	2 11 56	2 14 36	2 17 55
	(24)	52 43	3 18	8 24	11 44	14 22	17 42
Kanya	(23)	1 50 49	2 1 46	2 7 2	2 10 28	2 13 11	2 16 38
	(24)	50 55	1 51	7 7	10 31	13 15	16 41
Tula	(23)	1 57 17	2 6 41	2 11 20	2 14 19	2 16 44	2 19 45
	(24)	57 37	7 0	11 32	14 30	16 52	19 52
Vrischica	(23)	2 7 7	2 12 15	2 14 39	2 16 15	2 17 34	2 19 15
	(24)	7 22	12 8	14 35	16 7	17 24	19 0
Dhanus	(23)	2 9 48	2 7 49	2 6 55	2 6 18	2 5 47	2 5 9
	(24)	9 41	7 35	6 27	5 46	5 11	4 28
Makara	(23)	2 1 58	1 54 11	1 50 19	1 47 50	1 45 50	1 48 16
	(24)	1 42	53 44	49 51	47 20	45 16	42 41
Kumbha	(23)	1 53 1	1 42 28	1 37 23	1 34 6	1 31 26	1 28 7
	(24)	52 43	42 8	37 2	33 42	31 4	27 44
Mina	(23)	1 50 49	1 39 52	1 34 36	1 31 10	1 28 27	1 25 0
	(24)	50 55	39 59	34 43	31 19	28 35	25 9

N.B.—To obtain the durations in mean time intervals *reduce* the above by 10 secs. for every 60·9 min. and by 1 sec. for every 6.1 min. of time interval.

PRINCIPAL CITIES

Cities in India, Sri Lanka, Nepal and Bhutan using the same standard time

The local mean time (L. M. T.) is required in determining the sidereal time of a moment which is utilised in finding the Ascendant *(Lagna)* and the Tenth house *(Dasama)*. The following table gives the latitude and longitude of principal cities along with the Local Time Correction, viz., the reduction of Indian standard time to get the corresponding local mean time of the place.

The last set of corrections when applied to the sidereal time as obtained from pages 2 to 4 of this book or from the annual 'Indian Ephemeris' would give the sidereal time for 12*h* noon L.M.T. of the place in question. When the Greenwich time for any day is available, the corrections are to be diminished by 54 secs. before applying the same to the Greenwich sidereal time.

PLACE			Latitude North		Longitude East		Local Time Correction L.M.T from I.S.T.		Corr. to *Indian* Sid. Time	
			°	′	°	′	*m*	*s*	*m*	*s*
Adilabad	...	Andhra	19	37	78	30	−16	00	+ 0	03
Adoni	...	Andhra	15	38	77	19	−20	44	+ 0	03
Agartala	...	Tripura	23	49	91	17	+35	08	− 0	06
Agra	...	U P.	27	11	78	02	−17	52	+ 0	03
Ahmedabad	...	Gujarat	23	02	72	36	−39	36	+ 0	07
Ahmednagar	...	Maha.	19	05	74	48	−30	48	+ 0	05
Aijal	...	Mizoram	23	44	92	45	+41	00	− 0	07
Ajanta	...	Maha.	20	33	75	48	−26	48	+ 0	04
Ajmer	...	Rajasthan	26	27	74	38	−31	28	+ 0	05
Akola	...	Maha.	20	42	77	02	−21	52	+ 0	04
Aligarh	...	U. P.	27	54	78	04	−17	44	+ 0	03
Alipurduar	...	W. B.	26	28	89	32	+28	08	− 0	05
Allahabad	...	U. P.	25	28	81	52	− 2	32	+ 0	00
Alleppey	...	Kerala	9	30	76	23	−24	28	+ 0	04
Almora	...	U P.	29	36	79	40	−11	20	+ 0	02
Alwar	...	Rajasthan	27	34	76	38	−23	28	+ 0	04
Amaravati	...	Maha.	20	56	77	45	−19	00	+ 0	03
Ambala	...	Haryana	30	23	76	46	−22	56	+ 0	04
Ambikapur	...	M. P.	23	07	83	11	+ 2	44	− 0	00
Amingaon	...	Assam	26	12	91	42	+36	48	− 0	06
Amreli	...	Gujarat	21	36	71	15	−45	00	+ 0	07
Amritsar	...	Punjab	31	38	74	53	−30	28	+ 0	05
Anamalai	...	Tamil N.	10	38	76	50	−22	40	+ 0	04
Anand	...	Gujarat	22	32	73	00	−38	00	+ 0	06
Anantapur	...	Andhra	14	41	77	37	−19	32	+ 0	03
Angul	...	Orissa	20	48	85	01	+10	04	− 0	02
Anuradhapur	...	Sri Lanka	8	21	80	23	− 8	28	+ 0	01
Arcot	...	Tamil N.	12	56	79	24	−12	24	+ 0	02
Arrah	...	Bihar	25	33	84	40	+ 8	40	− 0	01
Arvi	...	Maha.	20	59	78	14	−17	04	+ 0	03
Asansol	...	W. B.	23	42	86	58	+17	52	− 0	03
Aurangabad	...	Maha.	19	52	75	18	−28	48	+ 0	05
Ayodhya	...	U. P.	26	48	82	14	− 1	04	+ 0	00

PLACE		Latitude North		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to Indian Sid. Time	
		°	′	°	′	m	s	m	s
Azamgarh ...	U. P.	26	03	83	13	+ 2	52	− 0	00
Baidyanath Dham (Deoghar)	Bihar	24	29	86	43	+16	52	− 0	03
Badrinath ...	U. P.	30	44	79	32	−11	52	+ 0	02
Balasore ...	Orissa	21	30	86	55	+17	40	− 0	03
Ballia ...	U. P.	25	44	84	11	+ 6	44	− 0	01
Balurghat ...	W. B.	25	14	88	47	+25	08	− 0	04
Banda ...	U. P.	25	20	80	22	− 8	32	+ 0	01
Bangalore ...	Karna.	12	58	77	36	− 19	36	+ 0	02
Bankura ...	W. B.	23	14	87	04	+18	16	− 0	03
Bapatla ...	Andhra	15	54	80	30	− 8	00	+ 0	01
Barasat ...	W. B.	22	43	88	29	+23	56	− 0	04
Bara Banki ...	U. P.	26	56	81	13	− 5	08	+ 0	01
Barauni ...	Bihar	25	29	85	59	+13	56	− 0	02
Bareilly ...	U. P.	28	21	79	23	−12	28	− 0	02
Baripada ...	Orissa	21	56	86	44	+16	56	− 0	03
Baroda ...	Gujarat	22	18	73	13	− 37	08	+ 0	06
Barpeta ...	Assam	26	20	91	02	+34	08	− 0	06
Barrackpur ...	W. B.	22	46	88	24	+23	36	− 0	04
Batanagar ...	W. B.	22	31	88	15	+23	00	− 0	04
Belgaum ...	Karna.	15	52	74	32	− 31	52	+ 0	05
Bellary ...	Karna.	15	10	76	56	− 22	16	+ 0	04
Berhampur ...	Orissa	19	18	84	51	+ 9	24	− 0	02
Bhadrak ...	Orissa	21	08	86	33	+16	12	− 0	03
Bhadravati ...	Karna	13	52	75	40	− 27	20	+ 0	04
Bhaglpur ...	Bihar	25	15	86	58	+17	52	− 0	03
Bharatpur ...	Rajasth.	27	13	77	29	− 20	04	+ 0	03
Bhatinda ...	Panjab	30	12	74	56	− 30	16	+ 0	05
Bhatpara ...	W. B.	22	56	88	26	+23	44	− 0	04
Bhavnagar ...	Gujarat	21	46	72	11	− 41	16	+ 0	07
Bhilainagar ...	M. P.	21	11	81	20	− 4	40	+ 0	01
Bhopal ...	M. P.	23	16	77	25	− 20	20	+ 0	03
Bhubaneswar ...	Orissa	20	15	85	50	+13	20	− 0	02
Bhuj ...	Gujarat	23	16	69	48	−50	48	+ 0	08
Bhusawal ...	Maha.	21	02	75	47	− 26	52	+ 0	04
Bijapur ...	Karna.	16	51	75	44	− 27	04	+ 0	04
Bijnor ...	U. P.	29	23	78	11	− 17	16	+ 0	03
Bikaner ...	Rajasth.	28	01	73	19	−36	44	+ 0	06
Bilasipara ...	Assam.	26	13	90	13	+30	52	− 0	05
Bilaspur ...	M. P.	22	05	82	13	− 1	08	+ 0	00
Bilaspur ...	H. P.	31	20	76	45	−23	00	+ 0	04
Bilimora ...	Gujarat	20	46	72	58	−38	08	+ 0	06
Biratnagar ...	Nepal	26	35	87	20	+19	20	− 0	03
Bishnupur ...	W. B.	23	05	87	18	+19	12	− 0	03
Bolpur ...	W. B.	23	40	87	42	+20	48	− 0	03
Bolangir ...	Orissa	20	40	83	30	+ 4	00	− 0	01
Bombay ...	Maha.	18	58	72	50	−38	40	+ 0	06
Brindaban ...	U. P.	27	33	77	44	−19	04	+ 0	03
Broach ...	Gujarat	21	41	73	01	− 37	56	+ 0	06
Bulandshahr ...	U. P.	28	24	77	54	−18	24	+ 0	03
Bulsar ...	Gujarat	20	36	72	59	−38	04	+ 0	06
Burdwan ...	W. B.	23	15	87	54	+21	36	− 0	04
Burnpur ...	W. B.	23	39	86	56	+17	44	− 0	03
Buxar ...	Bihar	25	34	84	01	+ 6	04	− 0	01
Calcutta ...	W. B.	22	35	88 5h 53m 30s	23	+23	30	− 0	04

PLACE		Latitude North		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. time	
		°	′	°	′	m	s	m	s
Calicut (Kozhikode)	Kerala	11	15	75	49	−26	44	+ 0	04
Cannanore ...	Kerala	11	52	75	25	−28	20	+ 0	05
Cape Comorin ...	Tamil N.	8	04	77	34	−19	44	+ 0	03
Chaibasa ...	Bihar	22	33	85	51	+13	24	− 0	02
Chandausi ...	U. P	28	27	78	49	−14	44	+ 0	03
Chandannagar ...	W. B	22	52	88	22	+23	28	− 0	04
Chandigarh ...	Punjab	30	44	76	53	−22	28	+ 0	03
Chapra ...	Bihar	25	47	84	43	+ 8	52	− 0	01
Chhindwara ...	M. P.	22	03	78	59	−14	04	+ 0	02
Chidambaram ...	Tamil N.	11	24	79	44	−11	04	+ 0	02
Chingleput ...	Tamil N.	12	42	80	01	− 9	56	+ 0	02
Chinsura ...	W. B.	22	54	88	21	+23	24	− 0	04
Chirala ...	Andhra	15	50	80	22	− 8	32	+ 0	01
Chittaranjan ...	W. B.	23	50	86	50	+17	20	− 0	03
Chittoor ...	Andhra	13	14	79	04	−13	44	+ 0	02
Chunar ...	U. P.	25	08	82	56	+ 1	44	− 0	00
Churu ...	Rajasthan	28	18	74	58	−30	08	+ 0	05
Cochin ...	Kerala	9	58	76	15	−25	00	+ 0	04
Coimbatore ...	Tamil N.	11	00	76	56	−22	16	+ 0	04
Colombo ...	Sri Lanka	6	54	79	52	−10	32	+ 0	02
Contai ...	W. B.	21	50	87	48	+21	12	− 0	03
Cooch Bihar ...	W. B.	26	19	89	28	+27	52	− 0	05
Coonoor ...	Tamil N.	11	21	76	49	−22	44	+ 0	04
Cuddalore ...	Tamil N.	11	43	79	49	−10	44	+ 0	02
Cuddapah ...	Andhra	14	28	78	50	−14	40	+ 0	02
Cuttack ...	Orissa	20	29	85	52	+13	28	− 0	02
Daltanganj ...	Bihar	24	02	84	04	+ 6	16	− 0	01
Daman ...	Gujarat	20	25	72	53	−38	28	+ 0	06
Damoh ...	M. P.	23	50	79	29	−12	04	+ 0	02
Danapur ...	Bihar	25	38	85	05	+10	20	− 0	03
Darbhanga ...	Bihar	26	10	85	54	+13	36	− 0	02
Darjeeling ...	W.B.	27	03	88	16	+23	04	− 0	04
Davangere ...	Karna.	14	31	75	58	−26	08	+ 0	04
Dehra Dun ...	U. P.	30	19	78	03	−17	48	+ 0	03
Dehri ...	Bihar	24	53	84	14	+ 6	56	− 0	01
Delhi ...	—	28	39	77	13	−21	08	+ 0	03
Dewas ...	M. P.	22	58	76	06	−25	36	+ 0	04
Dhanbad ...	Bihar	23	48	86	27	+15	48	− 0	03
Dhanuskodi ...	Tamil N.	9	12	79	23	−12	28	+ 0	02
Dharampuri ...	Tamil N.	12	08	78	13	−17	08	+ 0	03
Dharwar ...	Karna.	15	28	75	01	−29	56	+ 0	05
Dhenkanal ...	Orissa	20	40	85	38	+12	32	− 0	02
Dholpur ...	Rajasthan	26	42	77	56	−18	16	+ 0	03
Dhubri ...	Assam	26	02	89	59	+29	56	− 0	05
Dhulia ...	Maha.	20	58	74	47	−30	52	+ 0	05
Diamond Harbour ...	W. B.	22	12	88	13	+23	52	− 0	04
Dibrugarh ...	Assam	27	29	94	55	+49	40	− 0	08
Digboi ...	Assam	27	33	95	40	+52	40	− 0	09
Digha ...	W. B.	21	40	87	40	+20	40	− 0	03
Diu ...	Gujarat	20	42	71	01	−45	56	+ 0	08
Dimapur ...	Nagaland	25	51	93	48	+45	12	− 0	07
Durg ...	M. P.	21	11	81	21	− 4	36	+ 0	01
Durgapur ...	W. B.	23	30	87	20	+19	20	− 0	03
Dwarka ...	Gujarat	22	14	68	58	−54	08	+ 0	09
Ellora ...	Maha.	20	02	75	13	−29	08	+ 0	05

PLACE		Latitude North		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. Time	
		°	′	°	′	*m*	*s*	*m*	*s*
Eluru	... Andhra	16	43	81	09	− 5	24	+ 0	01
Ernakulam	... Kerala	9	59	76	18	−24	48	+ 0	04
Erode	... Tamil N.	11	20	77	46	−18	56	+ 0	03
Etawah	... U. P.	26	47	79	02	−13	52	+ 0	02
Faizabad	... U. P.	26	48	82	08	− 1	28	+ 0	00
Farakka	... W. B.	24	48	87	56	+21	44	− 0	04
Faridabad	... Haryana	28	25	77	22	−20	32	+ 0	03
Faridkot	... Punjab	30	40	74	57	−30	12	+ 0	05
Fatehgarh	... U. P.	27	23	79	35	−11	40	+ 0	02
Fatehpur	... U. P.	25	55	80	47	− 6	52	+ 0	01
Ferozabad	... U. P.	27	09	78	24	−16	24	+ 0	03
Ferozepur	... Punjub.	30	55	74	40	−31	20	+ 0	05
Galle	... Sri Lanka	6	01	80	15	− 9	00	+ 0	01
Gandhinagar	... Gujarat	23	15	72	45	−39	00	+ 0	06
Gangtok	... Sikkim	27	20	88	36	+24	24	− 0	04
Gauhati	... Assam	26	10	91	45	+37	00	− 0	06
Gaya	... Bihar	24	48	85	01	+10	04	− 0	02
Gaud	... W. B.	24	54	88	07	+22	28	− 0	04
Ghatal	... W. B.	22	40	87	44	+20	56	− 0	03
Ghatsila	... Bihar	22	35	86	28	+15	52	− 0	03
Ghaziabad	... U. P.	28	40	77	28	−20	08	+ 0	03
Ghazipur	... U. P.	25	36.	83	36	+ 4	24	− 0	01
Gilgit	... Kashmir	35	55	74	20	−32	40	+ 0	05
Gridih	... Bihar	24	10	86	19	+15	16	− 0	03
Goalpara	... Assam	26	10	90	36	+32	24	− 0	05
Gonda	... U. P.	27	09	81	57	− 2	12	+ 0	00
Gopalpur	... Orissa	19	16	84	57	+ 9	48	− 0	02
Gorakhpur	... U. P.	26	45	83	22	+ 3	28	− 0	01
Gudivada	... Andhra	16	25	81	00	− 6	00	+ 0	01
Gudur	... Andhra	14	09	79	54	−10	24	+ 0	02
Guntur	... Andhra	16	19	80	26	− 8	16	+ 0	01
Gurdaspur	... Punjab	32	03	75	27	−28	12	+ 0	05
Gurgaon	... Haryana	28	37	77	04	−21	44	+ 0	04
Gwalior	... M. P.	26	14	78	10	−17	20	+ 0	03
Habra	... W. B.	22	50	88	38	+24	32	− 0	04
Haldia	... W. B.	22	02	88	05	+22	20	− 0	04
Hanamkonda	... Andhra	18	03	79	32	−11	52	+ 0	02
Hapur	... U. P.	28	43	77	55	−18	20	+ 0	03
Hardoi	... U. P.	27	20	80	10	− 9	20	+ 0	02
Hardwar	... U. P.	29	56	78	08	−17	28	+ 0	03
Hassan	... Karna.	18	10	79	46	−10	56	+ 0	02
Hathras	... U. P.	27	36	78	06	−17	36	+ 0	03
Hazaribagh	... Bihar	23	59	85	22	+11	28	− 0	02
Hindupur	... Andhra	13	49	77	32	−19	52	+ 0	03
Hirakud	... Orissa	21	30	84	00	+ 6	00	− 0	01
Hissar	... Haryana	29	10	75	44	−27	04	+ 0	04
Hoshiarpur	... Punjab	31	32	75	57	−26	12	+ 0	04
Hospet	... Karna.	15	16	76	26	−24	24	+ 0	04
Howrah	... W. B.	22	36	88	19	+23	16	− 0	04
Hubli	... Karna.	15	20	75	12	−29	12	+ 0	05
Hyderabed	... Andhra	17	26	78	27	−16	12	+ 0	03
Imphal	... Manipur	24	48	93	57	+45	48	− 0	07
Indore	... M. P.	22	43	75	51	−26	36	+ 0	04
Itarsi	... M. P.	22	36	77	48	−18	48	+ 0	03

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PLACE			Latitude Noth		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. Time	
			°	′	°	′	m	s	m	s
Jabalpur	...	M. P.	23	09	79	57	−10	12	+ 0	02
Jaffna	...	Sri Lanka	9	40	80	00	−10	00	+ 0	02
Jagdalpur	...	M. P.	19	05	82	04	− 1	44	+ 0	00
Jaipur	...	Rajasthan	26	55	75	49	−26	44	+ 0	04
Jaisalmir	...	Rajasthan	26	55	70	57	−46	12	+ 0	08
Jalgaon	...	Maha.	21	03	75	40	−27	20	+ 0	04
Jalpaiguri	...	W. B.	26	32	88	44	+24	56	− 0	04
Jamalpur	...	Bihar	25	19	86	32	+16	08	− 0	03
Jammu	...	Kashmir	32	43	74	52	−30	32	+ 0	05
Jamnagar	...	Gujarat	22	27	70	07	−49	32	+ 0	08
Jamshedpur	...	Bihar	22	48	86	11	+14	44	− 0	02
Jangipur	...	W. B.	24	28	88	05	+22	20	− 0	04
Jaunpur	...	U. P.	25	46	82	42	+ 0	48	− 0	00
Jhansi	...	M. P.	25	27	78	33	−15	48	+ 0	03
Jharia	...	Bihar	23	00	80	33	− 7	48	+ 0	01
Jodhpur	...	Rajasthan	26	18	73	02	−37	52	+ 0	06
Jorhat	...	Assam	26	46	94	13	+46	52	− 0	08
Jullundur	...	Punjab	31	20	75	34	−27	44	+ 0	05
Junagadh	...	Gujarat	21	33	70	27	−48	12	+ 0	08
Kailasahar	...	Tripura	24	22	92	00	+38	00	− 0	06
Kakinada	...	Andhra	16	57	82	13	− 1	08	+ 0	00
Kalahasti	...	Andhra	13	45	79	44	−11	01	+ 0	02
Kalimpong	...	W. B.	26	05	88	26	+23	44	− 0	04
Kalyan	...	Maha.	19	14	73	10	−37	20	+ 0	06
Kalyani	...	W. B.	23	00	88	28	+23	52	− 0	04
Kanauj	...	U. P.	27	02	79	55	−10	20	+ 0	02
Kanchipuram	...	Tamil N.	12	50	79	42	−11	12	+ 0	02
Kandi	...	Sri Lanka	7	18	80	38	− 7	28	+ 0	01
Kandla	...	Gujarat	21	21	71	17	−44	52	+ 0	07
Kanpur	...	U. P.	26	29	80	21	− 8	36	+ 0	01
Karad	...	Maha	17	15	74	12	−33	12	+ 0	05
Karikal	...	Pondic.	10	56	79	51	−10	36	+ 0	02
Karwar	...	Karna.	14	48	74	11	−33	16	+ 0	05
Katihar	...	Bihar	25	34	87	34	+20	16	− 0	03
Kathmandu	...	Nepal	27	42	85	12	+10	48	− 0	02
Katni	...	M. P.	23	47	80	27	− 8	12	+ 0	01
Katras	...	Bihar	23	49	86	17	+15	08	− 0	02
Khammam	...	Andhra	17	14	80	06	− 9	36	+ 0	02
Khandwa	...	M. P.	21	50	76	20	−24	40	+ 0	04
Kharagpur	...	W. B.	22	20	87	20	+19	20	− 0	03
Khurda	...	Orissa	20	11	85	38	+12	32	− 0	02
Kirkee	...	Maha.	18	33	73	54	−34	24	+ 0	06
Kishanganj	...	Bihar	26	10	87	02	+18	08	− 0	03
Kodaikanal	...	Tamil N.	10	14	77	28	−20	08	+ 0	03
Kohima	...	Nagaland	25	41	94	07	+46	28	− 0	08
Kolar	...	Karna.	13	09	78	11	−17	16	+ 0	03
Kolhapur	...	Maha.	16	42	74	14	−33	04	+ 0	05
Kollegal	...	Karna.	12	09	77	09	−21	24	+ 0	04
Koraput	...	Orissa	18	50	82	40	+ 0	40	− 0	00
Kota	...	Rajasthan	25	10	75	52	−26	32	+ 0	04
Kottayam	...	Kerala	9	36	76	32	−23	52	+ 0	04
Krishnagar	...	W. B.	23	23	88	30	+24	00	− 0	04
Kumbakonam	...	Tamil N.	10	58	79	25	−12	20	+ 0	02
Kurnool	...	Andhra	15	50	78	03	−17	48	+ 0	03
Lucknow	...	U. P.	26	51	80	56	− 6	16	+ 0	01

PLACE		Latitude Noth		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. Time	
		°	′	°	′	m	s	m	s
Ludhiana ...	Punjab	30	55	75	52	−26	32	+ 0	04
Lumding ...	Assam	25	46	93	10	+42	40	− 0	07
Machilipatnam	Audhra	16	11	81	07	− 5	32	+ 0	01
Madhupur ...	Bihar	24	18	86	37	+16	28	− 0	03
Madras ...	Tamil N.	13	04	80	15	− 9	00	+ 0	01
Madurai ...	Tamil N.	9	58	78	10	−17	20	+ 0	03
Mahabalipuram	Tamil N.	12	37	80	14	− 9	04	+ 0	01
Mahbubnagar ...	Andhra	16	42	77	58	−18	08	+ 0	03
Mahe ...	Kerala	11	43	75	33	−27	48	+ 0	05
Maihar ...	M. P.	24	16	80	49	− 6	44	+ 0	01
Mainpuri ...	U. P.	27	14	79	03	−13	48	+ 0	02
Malda ...	W. B	25	05	88	09	+22	36	− 0	04
Mangalore ...	Karnatak.	12	52	74	50	−30	40	+ 0	05
Marwar ...	Rajasthan	25	43	73	45	−35	00	+ 0	06
Mathura ...	U. P.	27	23	77	42	−19	12	+ 0	02
Meerut ...	U. P.	29	01	77	45	−19	00	+ 0	03
Mercara ...	Karnatak.	12	26	75	47	−26	52	+ 0	04
Mettur ...	Tamil N.	11	47	77	48	−18	48	+ 0	03
Mhow ...	M. P	22	34	75	47	−26	52	+ 0	04
Midnapore ...	W. B.	22	26	87	19	+19	16	− 0	03
Miraj ...	Maha.	16	49	74	43	−31	08	+ 0	05
Mirpur ...	Kashmir	33	12	73	49	−34	44	+ 0	06
Mirzapur ...	U. P.	25	09	82	33	+ 0	12	− 0	00
Monghyr ...	Bihar	25	22	86	27	+15	48	− 0	03
Moradabad ...	U. P..	28	51	78	47	−14	52	+ 0	02
Morvi ...	Gujarat	22	49	70	49	−46	44	+ 0	08
Motihari ...	Bihar	26	38	84	54	+ 9	36	− 0	02
Mughal Sarai ...	U. P.	25	17	83	08	+ 2	32	− 0	00
Murshidabad ...	W. B.	24	12	88	18	+23	12	− 0	04
Mussorie ...	U. P.	30	27	78	06	−17	36	+ 0	03
Muzaffarnagar ...	U. P.	29	28	77	44	−19	04	+ 0	03
Muzaffarpur ...	Bihar	26	07	85	22	+11	28	− 0	02
Mysore ...	Karnata.	12	18	76	39	−23	24	+ 0	04
Nabadwip ...	W. B.	23	24	88	24	+23	36	− 0	04
Nabha ...	Punjab	30	25	76	09	−25	24	+ 0	04
Nagercoil ...	Tamil N.	8	11	77	29	−20	04	+ 0	03
Nagpur ...	Maha.	21	09	79	05	−13	40	+ 0	02
Nahan ...	H. P.	30	33	77	21	−20	36	+ 0	03
Naihati ...	W. B.	22	57	88	28	+23	52	− 0	04
Nainital ...	U. P.	29	22	79	27	−12	12	+ 0	02
Nanded ...	Maha.	19	09	77	27	−20	12	+ 0	03
Nangal ...	Punjab	31	23	76	23	−24	28	+ 0	04
Nasik ...	Maha.	20	02	73	50	−34	40	+ 0	06
Nawabganj ...	U. P.	26	56	82	12	− 1	12	+ 0	00
Neemuch ...	M. P.	24	27	74	52	−30	32	+ 0	05
Nellore ...	Andhara	14	27	80	00	−10	00	+ 0	02
Nizamabad ...	Andhara	18	40	78	06	−17	36	+ 0	03
Nowgong ...	Assam	26	21	92	42	+40	48	− 0	07
Ongole ...	Andhra	15	30	80	06	− 9	36	+ 0	02
Ootacamund ...	Tamil N.	11	24	76	44	−23	04	+ 0	04
Osmanabad ...	Maha.	18	12	76	03	−25	48	+ 0	04
Palghat ...	Kerala	10	46	76	40	−23	20	+ 0	04
Panaji ...	Goa	15	29	73	49	−34	44	+ 0	06
Panipat ...	Haryana	29	23	77	01	−21	56	+ 0	04

PLACE		Latitude North		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. Time	
		°	′	°	′	m	s	m	s
Pasighat ...	Arunach.	28	05	95	20	+51	20	− 0	09
Pathankot ...	Punjub.	32	17	75	40	−27	20	+ 0	04
Patiala ...	Punjab	30	19	76	24	−24	24	+ 0	04
Patna ...	Bihar	25	36	85	08	+10	32	− 0	02
Pilibhit ...	U. P.	28	38	79	51	−10	36	+ 0	02
Pollachi ...	Tamil N.	10	39	77	03	−21	48	+ 0	04
Pondicherry ...	—	11	56	79	50	−10	40	+ 0	02
Poona ...	Maha.	18	31	73	53	−34	28	+ 0	06
Porbander ...	Gujarat	21	38	69	37	−51	32	+ 0	03
Port Blair ...	Andaman	11	40	92	46	+41	04	− 0	07
Pudukkottai ...	Tamil N.	10	23	78	52	−14	32	+ 0	02
Puri ...	Orissa	19	48	85	50	+13	20	− 0	02
Punakha ...	Bhutan	27	36	89	50	+29	20	− 0	05
Purnea ...	Bihar	25	47	87	31	+20	04	− 0	03
Purulia ...	W. B.	23	20	86	23	+15	32	− 0	03
Quilion ...	Kerala	8	54	76	38	−23	28	+ 0	04
Rae Bareli ...	U. P.	26	14	81	13	− 5	08	+ 0	01
Raichur ...	Karnata.	16	12	77	21	−20	36	+ 0	03
Raiganj ...	W. B.	25	36	88	08	+22	32	− 0	04
Raigarh ...	M. P.	21	54	83	26	+ 3	44	− 0	01
Raipur ...	M. P.	21	15	81	37	− 3	32	+ 0	01
Rajahmundry ...	Andhra	17	00	81	46	− 2	56	+ 0	00
Rajkot ...	Gujarat	22	18	70	48	−46	48	+ 0	08
Rajmahal ...	Bihar	25	03	87	53	+21	32	− 0	04
Rameswaram ...	Tamil N.	9	18	79	18	−12	48	+ 0	02
Ramanathapuram	Tamil N.	9	22	78	51	−14	36	+ 0	02
Rampur ...	H. P	31	20	77	38	−19	28	+ 0	03
Rampur ...	U. P.	28	46	79	02	−13	52	+ 0	02
Ranaghat ...	W. B.	23	11	88	37	+24	28	− 0	04
Ranchi ...	Bihar	23	22	85	21	+11	24	− 0	02
Rangiya ...	Assam	26	30	91	35	+36	20	− 0	06
Raniganj ...	W. B.	23	35	87	07	+18	28	− 0	03
Ranikhet ...	U. P.	29	38	79	28	−12	08	+ 0	02
Ratangarh ...	Rajasthan	28	05	74	39	−31	24	+ 0	05
Ratlam ...	M. P.	23	31	75	07	−29	32	+ 0	05
Ratnagiri ...	Maha.	17	08	73	19	−36	44	− 0	06
Raxaul ...	Bihar	26	58	84	51	+ 9	24	− 0	02
Rewa ...	M. P.	24	33	81	17	− 4	52	+ 0	01
Rohtak ...	Haryana	28	54	76	34	−23	44	+ 0	04
Roorkee ...	U. P.	29	52	77	53	−18	28	+ 0	03
Rourkela ...	Orissa	22	25	84	52	+ 9	28	− 0	02
Sadiya ...	Arunach.	27	48	94	38	+48	32	− 0	08
Sagar ...	M. P.	23	50	78	50	−14	40	+ 0	02
Sagar ...	Karnatak.	16	37	76	51	−22	36	+ 0	04
Saharanpur ...	U. P.	29	58	77	32	−19	52	+ 0	03
Salem ...	Tamil N.	11	40	78	10	−17	20	+ 0	03
Samastipur ...	Bihar	25	55	85	50	+13	20	− 0	02
Sambalpur ...	Orissa	21	27	83	58	+ 5	52	− 0	01
Sangli ...	Maha.	16	52	74	36	−31	36	+ 0	05
Santiniketan (Bolpur) ...	W. B.	23	39	87	43	+20	52	− 0	03
Santipur ...	W. B.	23	15	88	29	+23	56	− 0	04
Sasaram ...	Bihar	24	57	84	03	+ 6	12	− 0	01
Satara ...	Maha.	17	42	74	00	−34	00	+ 0	06
Satna ...	M. P.	24	34	80	55	− 6	20	+ 0	01
Secunderabad ...	Andhra	17	27	78	33	−15	48	+ 0	03

PLACE			Latitude North		Longitude East		Local Time Correction L.M.T. from I.S.T.		Corr. to *Indian* Sid. Time	
			°	′	°	′	m	s	m	s
Seoni	...	M. P	22	06	79	35	-11	40	+ 0	02
Serampur	...	W. B.	22	45	88	23	+23	32	- 0	04
Shahabad	...	U. P.	27	30	80	05	- 9	40	+ 0	02
Shahdol		M. P.	23	00	81	30	- 4	00	+ 0	00
Shamli	...	U. P.	29	27	77	19	-20	44	+ 0	03
Shikohabad	...	U. P.	27	07	78	35	-15	40	+ 0	03
Shillong	...	Meghal.	25	35	91	53	+37	32	- 0	06
Shimoga	...	Karnata.	13	56	75	38	-27	28	+ 0	05
Shivpuri	...	M. P.	25	40	77	44	-19	04	+ 0	03
Sholapur	...	Maha	17	39	75	55	- 26	20	+ 0	04
Sibsagar	...	Assam	27	00	94	37	+48	28	- 0	08
Silchar	...	Assam	24	50	92	47	+41	08	- 0	07
Siliguri	...	W. B.	26	44	88	26	+23	44	- 0	04
Simla	...	H. P.	31	06	77	10	-21	20	+ 0	03
Sindri	...	Bihar	23	39	86	31	+16	04	- 0	03
Sitamari	...	Bihar	26	35	85	32	+12	08	- 0	02
Srikakulam	...	Andhara	18	18	83	56	+ 5	44	- 0	01
Srinagar	...	Kashmir	34	06	74	48	-30	48	+ 0	05
Srirangam	...	Tamil N.	10	52	78	44	-15	04	+ 0	02
Sultanpur	...	U. P.	26	16	82	07	- 1	32	+ 0	00
Sundargarh	...	Orissa	22	06	84	00	+ 6	00	- 0	01
Surat	...	Gujarat	21	10	72	51	-38	36	+ 0	06
Surendranagar	...	Gujarat	22	43	71	33	-43	48	+ 0	07
Suri	...	W. B.	23	54	87	34	+20	16	- 0	03
Tamluk	...	W. B.	22	18	87	54	+21	36	- 0	04
Tangla	...	Assam	26	40	91	54	+37	36	- 0	06
Tarakeswar	...	W. B.	22	54	88	02	+22	08	- 0	04
Tenali	...	Andhra	16	14	80	38	- 7	28	+ 0	01
Tezpur	...	Assam	26	37	92	47	+41	08	- 0	07
Thanjavur	...	Tamil N.	10	47	79	08	-13	28	+ 0	02
Thimphu	...	Bhutan	27	32	89	53	+29	32	- 0	05
Tinsukia	...	Assam	27	28	95	20	+51	20	- 0	08
Tiruchirapalli	...	Tamil N.	10	50	78	42	-15	12	+ 0	02
Tirunelveli	...	Tamil N.	8	44	77	41	-19	16	+ 0	03
Tirupati	...	Andhra	13	40	79	20	-12	40	+ 0	02
Trichur	...	Kerala	10	30	76	15	-25	00	+ 0	04
Trincomalee	...	Sri Lanka	8	34	81	15	- 5	00	+ 0	01
Trivandrum	...	Kerala	8	31	77	00	- 22	00	+ 0	04
Tuticorin	...	Tamil N.	8	49	78	09	-17	24	+ 0	03
Udaipur	...	Rajasthan	24	35	73	44	-35	04	+ 0	06
Udipi	...	Karnata.	13	20	74	45	-31	00	+ 0	05
Ujjain	...	M. P.	23	11	75	46	-26	56	+ 0	04
Varanasi	...	U. P.	25	19	83	01	+ 2	04	- 0	00
Vellore	...	Tamil N.	12	55	79	11	-13	16	+ 0	02
Veraval	...	Gujarat	20	53	70	26	-48	16	+ 0	08
Vidisha	...	M. P.	23	32	77	51	-18	36	+ 0	03
Vijayawada	...	Andhra	16	32	80	36	- 7	36	+ 0	01
Visakhapatnam	...	Andhra	17	43	83	19	+ 3	16	- 0	01
Vizianagram	...	Andhra	18	07	83	26	+ 3	44	- 0	01
Waltair	...	Andhra	17	47	83	12	+ 2	48	- 0	00
Warangal	...	Andhra	17	58	79	40	-11	20	+ 0	02
Wardha	...	Maha.	20	44	78	37	-15	32	+ 0	03
Yeotmal	...	Maha.	20	25	78	08	-17	28	+ 0	03

NOTE :—The longitude of place also represents the difference of local time from G.M.T. converted at the rate of 4 mins. per degree and 4 secs. per minutes of longitude (*i.e.* 1 hour for 15 degrees). The time of a place in the east is in advance of (*viz.* more than) that in the west. The Standard Time of India (I.S.T.) is *5h 30m* ahead of G.M.T.

Cities in Bangladesh and Pakistan

The corrections to get the local time (L.M.T.) for cities in Bangladesh and Pakistan are given with reference to the Zonal Standard Time (6^h ahead of G. M. T. for Bangladesh and 5^h for Pakistan) and also with reference to the Indian Standard Time $5\frac{1}{2}^h$ ahead of G.M.T.)

Bangladesh (formerly East Pakistan) observed Bengal Time ($6\frac{1}{2}^h$ ahead of G.M.T.) for civil purposes and Pakistan Standard time, same as I.S.T., for Railway and Postal work etc. up to 30-9-51. From 1st October 1951 East Pakistan (now Bangladesh) standard time is 30*m* more than I.S.T. and West Pakistan (now Pakistan) standard time is 30*m* less than I.S.T.

PLACE	Latitude North		Longitude East		Local Time Correction				Corr. to *Indian* Sid. Time	
					L.M.T from Zonal Std. Time		L. M. T. from I. S. T.			
BANGLADESH (*Time Zone* : +6*h*)	°	′	°		*m*	*s*	*m*	*s*	*m*	*s*
Barisal	22	42	90	22	+ 1	28	+31	28	− 0	05
Bogra	24	51	89	23	− 2	28	+27	32	− 0	05
Chandpur	23	14	90	38	+ 2	32	+32	32	− 0	05
Chittagong	22	21	91	50	+ 7	20	+37	20	− 0	06
Comilla	23	28	91	12	+ 4	48	+34	48	− 0	06
Cox Bazar	21	27	92	00	+ 8	00	+38	00	− 0	06
Dacca	23	42	90	25	+ 1	40	+31	40	− 0	05
Dinajpur	25	40	88	38	− 5	28	+24	32	− 0	04
Faridpur	23	36	89	51	− 0	36	+29	24	− 0	05
Gaibanda	25	22	89	33	− 1	48	+28	12	− 0	05
Goalundo	23	49	89	45	− 1	00	+29	00	− 0	05
Ishurdi	24	08	89	05	− 3	40	+26	20	− 0	04
Jessore	23	08	89	12	− 3	12	+26	48	− 0	04
Khulna	22	48	89	35	− 1	40	+28	20	− 0	05
Kushtia	23	55	89	07	− 3	32	+26	28	− 0	04
Mymensing	24	45	90	24	+ 1	36	+31	36	− 0	05
Narayanganj	23	38	90	30	+ 2	00	+32	00	− 0	05
Nator	24	25	89	02	− 3	52	+26	08	− 0	04
Netrakona	24	53	90	45	+ 3	00	+33	00	− 0	05
Noakhali	22	48	91	06	+ 4	24	+34	24	− 0	06
Pabna	24	01	89	16	− 2	56	+27	04	− 0	04
Parbatipur	25	40	88	53	− 4	28	+25	32	− 0	04
Rajshahi	24	23	88	35	− 5	40	+24	20	− 0	04
Rangpur	25	45	89	18	− 2	48	+27	12	− 0	04
Santahar	24	48	89	00	− 4	00	+26	00	− 0	04
Sirajganj	24	27	89	44	− 1	04	+28	56	− 0	05
Sylhet	24	55	91	52	+ 7	28	+37	28	− 0	06
Tangail	24	13	89	55	− 0	20	+29	40	− 0	05

Cities in Bangladesh and Pakistan—*Contd.*

PLACE	Latitude North	Longitude East	Local Time Correction		Corr. to *Indian* Sid. Time
			L.M.T. from Zonal Std. Time	L.M.T. from I. S. T.	
PAKISTAN (*Time Zone*: +5*h*)					
	° ′	° ′	*m s*	*m s*	*m s*
Bahawalpur	29 24	71 40	−13 20	−43 20	+0 07
Bannu	33 00	70 36	−17 36	−47 36	+0 08
Hyderabad	25 23	68 21	−26 36	−56 36	+0 09
Islamabad	33 42	73 10	− 7 20	−37 20	+0 06
Karachi	24 51	67 01	−31 56	−61 56	+0 10
Lahore	31 35	74 18	− 2 48	−32 48	+0 05
Multan	30 12	71 28	−14 08	−44 08	+0 07
Peshawar	34 01	71 34	−13 44	−43 44	+0 07
Quetta	30 12	67 02	−31 56	−61 56	+0 10
Rawalpindi	33 35	73 03	− 7 48	−37 48	+0 06
Sukkur	27 43	68 53	−24 28	−54 28	+0 09

FOREIGN CITIES

The adopted Zonal Standard Times of the territories with reference to which the local time corrections for the cities and the reductions to I.S.T. have been given are those as in current use. It is likely that before and during the war period some of these standard times were different, but it has not been possible to indicate here all such changes.

In many countries summer time is kept *i.e.*, during the summer months the clocks are advanced usually by one hour. If the recorded time of the event is summer time, it should be converted into the normal standard time of the territory or zone by making necessary correction (generally *Minus* 1hr) before the reductions for local time and I.S.T. are applied.

(Countries observing Summer Time or Day Light Saving Time durning the summer months are marked with asterisks.)

PLACE		Time Zone	Latitude	Longitude	L.M.T. from Zonal Standard Time	I.S.T. from Z.S.T.	Corr. to *Indian* Sid. time
		h	° ′	° ′	*m s*	*h m*	*m s*
Accra	Ghana	+ 0	5 31N	0 15W	− 1 00	+ 5 30	+0 54
Addis Ababa	Ethiopia	+ 3	9 02N	38 44E	−25 04	+ 2 30	+0 29
Aden	Yemen	+ 3	12 45N	45 04E	+ 0 16	+ 2 30	+0 25
Akyab	Burma	+ 6½	20 09N	92 55E	−18 20	− 1 00	−0 07
Alexandria	Egypt*	+ 2	31 12N	29 53E	− 0 28	+ 3 30	+0 35
Amsterdam	Nether	+ 1	52 22N	4 53E	−40 28	+ 4 30	+0 51
Ankara	Turkey*	+ 2	39 57N	32 54E	+11 36	+ 3 30	+0 33

PLACE		Time Zone h	Latitude ° ′	Longitude ° ′	L.M.T. from Zonal Standard Time m s	I.S.T. from Z.S.T. h m	Corr. to Indian Sid. time m s
Athens	Greece	+ 2	37 54N	23 52E	−24 32	+ 3 30	+0 38
Auckland	N. Zealand	+12	36 52S	174 42E	−21 12	− 6 30	−1 1
Baghdad	Iraq	+ 3	33 20N	44 27E	− 2 12	+ 2 30	+0 25
Bangkok	Thailand	+ 7	13 44N	100 30E	−18 00	− 1 30	−0 12
Beirut	Lebanon*	+ 2	33 50N	35 25E	+21 40	+ 3 30	+0 31
Belgrade	Yugoslavia	+ 1	44 50N	20 30E	+22 00	+ 4 30	+0 41
Berlin	Germany	+ 1	52 32N	13 25E	− 6 20	+ 4 30	+0 45
Birmingham	England	0	52 30N	1 50W	− 7 20	+ 5 30	+0 55
Bonn	W. Ger.	+ 1	50 44N	7 04E	−31 44	+ 4 30	+0 50
Boston	U. S. A.*	− 5	42 21N	71 04W	+15 44	+10 30	+1 41
Brasilia	Brazil	− 3	16 13S	44 29W	+ 2 04	+ 8 30	+1 23
Brussels	Belgium	+ 1	50 52N	4 22E	−42 32	+ 4 30	+0 51
Bucharest	Romania	+ 2	44 25N	26 07E	−15 32	+ 3 30	+0 37
Budapest	Hungary	+ 1	47 29N	19 03E	+16 12	+ 4 30	+0 42
Buenos Aires	Argentina	− 3	34 35S	58 20W	−53 20	+ 8 30	+1 32
Cairo	Egypt*	+ 2	30 08N	31 34E	+ 6 16	+ 3 30	+0 34
Canberra	Australia	+10	35 19S	149 00E	− 4 00	− 4 30	−0 44
Cape Town	S. Africa	+ 2	33 56S	18 29E	−46 04	+ 3 30	+0 42
Chicago	U. S. A.	− 6	41 53N	87 38W	+ 9 28	+11 30	+1 52
Copenhagen	Denmark	+ 1	55 40N	12 30E	−10 00	+ 4 30	+0 46
Damascus	Syria*	+ 2	33 30N	36 14E	+24 56	+ 3 30	+0 30
Dar-es-Salam	Tanzania	+ 3	6 50S	39 17E	−22 52	+ 2 30	+0 28
Djakarta	Indonesia	+ 7	6 16S	106 53E	+ 7 32	− 1 30	−0 16
Dublin	Ireland	+ 1	53 20N	6 15W	−85 00	+ 4 30	+0 58
Edinburgh	Scotland	0	55 56N	3 11W	−12 44	+ 5 30	+0 56
Frankfurt	W. Ger.	+ 1	50 06N	8 40E	−25 20	+ 4 30	+0 48
Geneva	Switz.	+ 1	46 12N	6 09E	−35 24	+ 4 30	+0 50
Glasgow	Scotland	0	55 52N	4 15W	−17 00	+ 5 30	+0 57
Greenwich	England	0	51 29N	0 00	0 00	+ 5 30	+0 54
Hanoi	N. Vietnam	+ 7	21 02N	105 52E	+ 3 28	− 1 30	−0 15
Havana	Cuba*	− 5	23 08N	82 22W	−29 28	+10 30	+1 48
Helsinki	Finland*	+ 2	60 09N	24 57E	−20 12	+ 3 30	+0 38
Hongkong	—	+ 8	22 18N	114 10E	−23 20	− 2 30	−0 21
Honolulu	Hawai Is.	−10	22 00N	156 00W	−24 00	+15 30	+2 37
Istanbul	Turkey*	+ 2	41 00N	29 00E	− 4 00	+ 3 30	+0 35
Jerusalem	Israel	+ 2	31 46N	35 14E	+20 56	+ 3 30	+0 31
Khartoum	Sudan*	+ 2	15 35N	32 35E	+10 20	+ 3 30	+0 33
Kabul	Afghan	+ 4½	34 33N	69 12E	+ 6 48	+ 1 00	+0 09
Kandahar	Afghan.	+ 4½	31 32N	65 30E	− 8 00	+ 1 00	+0 11
Kuala Lumpur	Malaysia	+ 7½	3 09N	101 43E	−43 08	− 2 00	−0 13
Kuwait	—	+ 3	29 30N	47 45E	+11 00	+ 2 30	+0 23
Kwangchow	China	+ 8	23 06N	113 16E	−26 56	− 2 30	−0 20
Lagos	Nigeria	+ 1	6 25N	3 27E	−46 12	+ 4 30	+0 52
Leipzig	E. German	+ 1	51 20N	12 23E	−10 28	+ 4 30	+0 46
Leeds	England*	0	53 50N	1 35W	+ 6 20	+ 5 30	+0 55
Leningrad	U.S S.R.	+ 3	59 57N	30 18E	−58 48	+ 2 30	+0 34
Lhasa	Tibet	+ 6	29 40N	91 07E	+ 4 28	− 0 30	−0 06
Lima	Peru	− 5	12 02S	77 02W	− 8 08	+10 30	+1 45
Lisbon	Portugal	+ 1	38 43N	9 11W	−96 44	+ 4 30	+1 00
Liverpool	England*	0	53 25N	2 55W	−11 40	+ 5 30	+0 56
London	England*	0	51 32N	0 05W	− 0 20	+ 5 30	+0 54
Los Angeles	U. S. A*	− 8	34 03N	118 17W	+ 6 52	+13 30	+2 12
Madrid	Spain	+ 1	40 25N	3 41W	−74 44	+ 4 30	+0 57

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PLACE		Time Zone	Latitude	Longitude	L.M.T. from Zonal Standard Time	I.S.T. from Z.S.T.	Corr. to *Indian* Sid. time
		h	° ′	° ′	*m s*	*h m*	*m s*
Manchester	England*	0	53 30N	2 15W	− 9 00	+ 5 30	+0 56
Mandalay	Burma	+ 6½	22 00N	96 05E	− 5 40	− 1 00	−0 09
Manila	Philippin.	+ 8	14 30N	121 30E	+ 6 00	− 2 30	−0 26
Mauritius	Ind. Ocen.	+ 4	20 17S	57 33E	− 9 48	+ 1 30	+0 16
Mecca	Sd. Arabia	+ 3	21 25N	39 54E	−20 24	+ 2 30	+0 28
Melbourne	Australia	+10	37 50S	144 59E	−20 04	− 4 30	−0 41
Mexico City	Mexico	− 6	19 26N	99 01W	−36 04	+11 30	+1 50
Milan	Italy*	+ 1	45 28N	9 11E	−23 16	+ 4 30	+0 48
Mombasa	Kenya	+ 3	4 00S	39 40E	−21 20	+ 2 30	+0 28
Montreal	Canada*	− 5	45 30N	73 34W	+ 5 44	+10 30	+1 43
Moscow	U.S.S.R.	+ 3	55 45N	37 34E	−29 44	+ 2 30	+0 30
Moulmein	Burma	+ 6½	16 30N	97 38E	+ 0 32	− 1 00	−0 10
Nairobi	Kenya	+ 3	1 18S	36 52E	−32 32	+ 2 30	+0 30
Newcastle	England*	0	52 27N	9 04W	−36 16	+ 5 30	+1 00
New York	U. S. A.*	− 5	40 43N	74 00W	+ 4 00	+10 30	+1 43
Osaka	Japan	+ 9	34 40N	135 30E	+ 2 00	− 3 30	−0 35
Oslo	Norway*	+ 1	59 54N	10 45E	−17 00	+ 4 30	+0 47
Ottawa	Canada*	− 5	45 24N	75 43W	− 2 52	+10 30	+1 44
Paris	France	+ 1	48 50N	2 20E	−50 40	+ 4 30	+0 53
Pegu	Burma	+ 6½	17 20N	96 29E	− 4 04	− 1 00	−0 09
Peking	China	+ 8	39 55N	116 28E	−14 08	− 2 30	−0 22
Perth	Australia	+ 8	32 00S	115 50E	−16 40	− 2 30	−0 22
Philadelphia	U. S. A.*	− 5	39 58N	75 17W	− 1 08	+10 30	+1 44
Phnom Penh	Cambodia	+ 7	11 35N	104 57E	− 0 12	− 1 30	−0 15
Prague	Czecho.	+ 1	50 05N	14 24E	− 2 24	+ 4 30	+0 45
Prome	Burma	+ 6½	18 47N	95 15E	− 9 00	− 1 00	0 08
Quebec	Canada*	− 5	46 48N	71 13W	+15 08	+10 30	+1 41
Rangoon	Burma	+ 6½	16 47N	96 10E	− 5 20	− 1 00	−0 09
Rio de Janeiro	Brazil	− 3	22 54S	43 12W	+ 7 12	+ 8 30	+1 23
Riyadh	Sd. Arabia	+ 3	24 39N	46 41E	+ 6 44	+ 2 30	+0 13
Rome	Italy*	+ 1	41 55N	12 27E	−10 12	+ 4 30	+0 46
Saigon	S. Vietnam	+ 8	10 49N	106 41E	−53 16	− 2 30	−0 16
San Francisco	U. S. A.*	− 8	37 48N	122 25W	− 9 40	+13 30	+2 15
Seoul	S. Korea	+ 9	37 31N	127 06E	−31 36	− 3 30	−0 29
Shanghai	China	+ 8	31 14N	121 25E	+ 5 52	− 2 30	−0 26
Singapore	—	+ 7½	1 21N	103 54E	−34 24	− 2 00	−0 14
Sofia	Bulgaria	+ 2	42 41N	23 21E	−26 36	+ 3 30	+0 39
Stockholm	Sweden	+ 1	59 20N	18 00E	+12 00	+ 4 30	+0 42
Sydney	Australia	+10	33 52S	151 12E	+ 4 48	− 4 30	−0 45
Taipei	Taiwan*	+ 8	23 30N	121 00E	+ 4 00	− 2 30	−0 25
Taskent	U.S.S.R.	+ 6	41 20N	69 18E	−82 48	− 0 30	+0 09
Tehran	Iran	+ 3½	35 41N	51 26E	− 4 16	+ 2 00	+0 20
Tokyo	Japan	+ 9	35 40N	139 33E	+18 12	− 3 30	−0 37
Toronto	Canada*	− 5	43 39N	79 23W	−17 32	+10 30	+1 46
Tripoli	Libya	+ 1	32 45N	13 15E	− 7 00	+ 4 30	+0 46
Vienna	Australia	+ 1	48 12N	16 22E	+ 5 28	+ 4 30	+0 44
Volgograd	U.S.S.R.	+ 4	48 44N	44 25E	−62 20	+ 1 30	+0 25
Warsaw	Poland*	+ 1	52 12N	21 00E	+24 00	+ 4 30	+0 40
Washington DC.	U. S. A.*	− 5	38 55N	77 04W	− 8 16	+10 30	+1 45
Weilington	N. Zealand	+12	41 16S	174 47E	−20 52	− 6 30	−1 01
Zurich	Switz.	+ 1	47 26N	8 22E	−26 32	+ 4 30	+0 49

N.B. Fig. in col. (6) — fig. in col. (5) = **Excess of I.S.T. over L.M.T.**

Period of Summer Time

British Summer Time (when clock time is 1 hour more than G.M.T.)
(Changing at 2 a.m. G.M.T.)

1935 Apr. 14 to Oct. 6
1936 Apr. 19 to Oct. 4
1937 Apr. 18 to Oct. 3
1938 Apr. 10 to Oct. 2
1939 Apr. 16 to Nov. 19
1940 Feb. 25 to Dec. 31
1941*whole year.
1942*whole year.
1943*whole year.
1944*whole year.
1945*Jan. 1 to Oct. 7
1946 Apr. 14 to Oct. 6
1947*Mar. 16 to Nov. 2

1948 Mar. 14 to Oct. 31
1949 Apr. 3 to Oct. 30
1950 Apr. 16 to Oct. 22
1951 Apr. 15 to Oct. 21
1952 Apr. 20 to Oct. 26
1953 Apr. 19 to Oct. 4
1954 Apr. 11 to Oct. 3
1955 Apr. 17 to Oct. 2
1956 Apr. 22 to Oct. 7
1957 Apr. 14 to Oct. 6
1958 Apr. 20 to Oct. 5
1959 Apr. 19 to Oct. 4
1960 Apr. 10 to Oct. 2

1961 Mar. 26 to Oct. 29
1962 Mar. 25 to Oct. 28
1963 Mar. 31 to Oct. 27
1964 Mar. 22 to Oct. 25
1965 Mar. 21 to Oct. 24
1966 Mar. 20 to Oct. 23
1967 Mar. 19 to Oct. 29
1968 Feb. 18 to Dec. 31
1969 whole year.
1970 whole year.
1971 till Oct. 31.
1972 Mar. 19 to Oct. 29
1973 Mar. 18 to Oct. 28

1974 Mar. 17 to Oct. 27
1975 Mar. 16 to Oct. 26

**Double Summer Time* (when clock time is 2^h more than G.M.T.)

1941 May 4 to Aug. 10,
1942 Apr. 5 to Aug. 9,
1943 Apr. 4 to Aug. 15,
1944 Apr. 2 to Sept. 17,
1945 Apr. 2 to July 15,
1947 Apr. 13 to Aug. 10,

From 1973 onward Summer Time observed is from 2 a.m. of Sunday following the third Saturday in March to 2 a.m. of the day following the fourth Sunday in Oct.

In North America (U.S.A., Canada and Mexico) the following standard times are maintained :

	Normal Standard time	During Summer Seasons.
Atlantic Time	– 4*h* AST	– 3*h* ADT
Eastern Time	– 5*h* EST	– 4*h* EDT
Central Time	– 6*h* CST	– 5*h* CDT
Mountain Time	– 7*h* MST	– 6*h* MDT
Pacific Time	– 8*h* PST	– 7*h* PDT

The cities of New York, Washington D.C., Philadelphia, Boston, Quebec, Toronto, Ottawa, Montreal etc. fall in the Eastern Time Zone: Indian Standard Time is 10½ hrs. in advance of the normal standard time of this zone.

Summer Time or Day Light Saving Time is introduced from 2 a.m. of last Sunday in April and withdrawn from 2 a.m. of last Sunday in October, during which period clocks are advanced by *one* hour.

In U.S.S.R. the standard time observed varies from +3*h* to +13*h*.

Originally the European countries like Irish Republic, France, Belgium, Portugal, Spain etc. observed G.M.T. as the standard time of the country. During the period of second world war, their clocks were advanced by one hour for purpose of Day Light Saving as was done in Great Britain. That system of time is still being continued in these countries although Britain has since resorted to G.M.T. except for Summer Time.

—*FINIS*—

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OF

PLANETS' POSITIONS

ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

PART II

COVERING FORTYTWO YEARS

FROM 1900 TO 1941 A.D.

N. C. LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA

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From 1900 to 1941 A. D.

(Seventh Edition)

BY

NIRMAL CHANDRA LAHIRI, M.A

Gaṇitācārya, Gaṇitakalānidhi.

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PREFACE

As already stated in the preface to Part I of this series of Condensed Ephemeris, this publication is now being issued in three parts, *viz*. Part I—covering years 1875 to 1900 A.D., Part II (the present volume) —1900 to 1941 A.D., and Part III—1941 to 1951 A.D. Parts I and II follow the same arrangement as in the original Condensed Ephemeris which covered years from 1890 to 1941 A.D. The original volume was first published in March, 1942 and was reprinted in July, 1944 and March, 1948.

The Ayanāmśa has been calculated from 207 Śaka or 285 A.D. (March 22), and the true ayanamsa has been given at the top of each page for 1st January of the year, calculated on the basis of gradually increasing rate of precession and including nutation also. This ayanāmśa produces the nirayana longitude of the star *Citra* (Spica) as 180°0′3″ in 285 A.D. and 179°59′0″ in 1950 A.D., the decrease being due to the proper motion of the star, and so the ayanāmśa is purely in accordance with the Citrā-pakṣa. The longitude of Spica is obtained exactly as 180° in about 400 A.D. *i e.* at the time of the development in our country of scientific astronomy as well as astrology. The adoption of the slightly revised value for ayanāmśa (i.e. 285 A.D.) has produced slight changes in the longitudes of planets for certain months as published in the original volume. In which the longitude of Spica was adopted as 180° for all the years.

I shall be glad to receive intimation of any error detected by my readers in this publication.

ASTRO-RESEARCH BUREAU
4th April, 1954.

N. C. LAHIRI

Preface to to Second Edition

This edition is only a reprint of the first edition after making corrections of printer's errors as far as possible.

1st January, 1960.

PUBLISHER

Preface to the Third Edition

The present edition is only a reprint of the book.

1st May, 1964.

PUBLISHER

Reprinted : May 1969.

Preface to the Fifth Edition

Although the present edition is only a reprint of the earlier one as far as the ephemeris portion is concerned, many new items of interest have been included in this issue as indicated below.

As already explained in our yearly ephemeris the Lunar Nede or *Rāhu* has got the mean position as well as the true position as in the case of the Sun and the Moon, and the greatest difference between the two positions is about 1¾ degrees. Many of our readers have noticed that the movement of true Rahu has got astrological effect and have accordingly requested us to make provision for finding the true longitude of Rahu for years prior to 1941.

In order to meet this end two tables have been given for working out the true longitude of Rahu from its mean longitude as furnished in this book.

The method of calculation of the moment of Retrogression and Direction of planets (the Stationary points) is not generally given in books teaching astrology or related astronomy. As this is a necessary information, the procedure for working out the times of planet's becoming retrograde or direct has been fully explained with an worked out example.

A short table has been given for estimating the dates of heliacal rising and setting of planets.

The times of new moon, full moon and transit of Sun into Nirayana Rasis, which along with the two items mentioned above which are not given in the series of Condensed Ephemeris prior to 1941, are very useful in astrological calculations and fixing the dates of the calendar. With a view to serving these purposes times of New moon, Full moon, and Sun's transit have been given for the years 1878 to 1941 in a separate table.

The series of Condensed Ephemeris and also our annual Ephemeris are in fact fit to use for any place on the earth. In order to facilitate the readars to make such calculation for a given time and place outside India, an example for a foreign city has been given with details of calculation.

ASTRO-RESEARCH BUREAU
Calcutta.
1st July, 1973

N. C. LAHIRI

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June, 1982

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Example of a Foreign City

Date : 25th May 1941, Sunday,
Time : 10-30 p.m. Local Standard Time (Summer Time in this case)
Place : New York city (New York State, U.S.A.)
Lat. 40° 43′ N. Long. 74° 01′ W.

As the recorded time is Summer time or Day light saving time, the normal standard time of the moment is 1*h* less i.e. the moment is 9-30 p.m. (Zonal Standard Time).

The place falls in the Eastern Time Zone (E.T.) where time is 5*h* less than G.M.T. and $10^h\ 30^m$ less than I.S.T. Hence G.M.T. of the moment is 2-30 a.m. (9.30+5.0) and I.S.T. is 8-0 a.m. both of 26th May 1941, Monday. The I.S.T. can also be derived from G.M.T. by the addition of 5*h* 30*m*.

As the place is in the west of Greenwich, the L.M.T. of the moment is less* than G.M.T. by the time-equivalent of the longitude, i.e. by $4^h\ 56^m$ ($74°\ 01' \times 4 = 296^m\ 04^s = 4h\ 56m$ nearly). Hence the L.M.T. as obtained from G.M.T. is 2-30 a.m. of 26 May *diminished by* $4^h\ 56^m$ i.e. 9-34 p.m. of 25 May, 1941. This can also be obtained by applying correction of +4m to Zonal standard time of 9-30 P.M. (vide last page of yearly ephemeris).

So time is 10-30 p.m. of 25 May..........recorded time (Summer)
9-34 p.m. „ L.M.T. (for calculation of ascendant)
2-30 a.m. of 26 May......G.M.T. or U.T.
8-00 a.m. of „ „ ......I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for 12*h* noon of 25 May 1941 at New York (From author's Tables of Ascendants, Tables I, II, III)

$= h\ 4\text{-}9\text{-}33 + 0\text{-}16s + 1\text{-}43s = h\ 4\text{-}11\text{-}32s$

∴ Sidereal Time for 9-34 p.m. L.M.T. (of New York)

$= h\ 4\text{-}11\text{-}32 + h\ 9\text{-}34 + 1m\text{-}35s$ (Tab. IV)
$= h\ 13\text{-}47\text{-}07$

Hence the ascendant for Latitude 41°N is obtained as 8*s* 11° 16′

Planets—To be calculated for 8-00 a.m. I.S.T. 26 May, 1941.

Long. of Moon at 5-30 p.m. I.S.T., 25 May = $1^s\ 2°\ 54'$
„ „ „ 26 May − 1s 14° 53′

Hence at 8-00 a.m. of 26 May, i.e. *h* 14-30 after 25th evening Moon = $1^s\ 2°\ 54' + 7°\ 15' = 1^s\ 10°\ 09'$

In this connection see examples given on pages 103-105 by which the positions of planets can also be found for the above hour of I.S.T.

---

*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS

FOR FORTY-TWO YEARS

FROM	1900	TO	1941 A.D.
,,	1821-22	,,	1862-63 ŚAKA ERA
,,	1306-07	,,	1347-48 (B.S.) BENGALI SAN
,,	1956-57	,,	1997-98 SAMVAT ERA
,,	1075-76	,,	1116-17 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Saṁvat era.
Samvat era ,, with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat ,, with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era ,, on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5, after which the next year of Fusli begins. Hindi months begin a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are available in author's Advance Ephemeris.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant 12*h* U.T. i.e. 12*h* G. M. T. (Greenwich mean noon) or 5-30 P.M. Indian Standard Time (I.S.T.).

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of seven days i.e. for every Sunday and those of Mercury have been given for Sundays and Wednesdays. Moon's longitude has as usual been given for every day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way : Vaiśākha—1 Jyaiṣṭha—2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6. Kārtika—7, Agrahāyana—8, Pauṣa—9, Māgha—10, Phālguna—11 & Chaitra—12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāñgas* computed on orthodox methods. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e. mala* or *adhika māśa*.

The *sudi* half of the month begins when the number of the *tithi* is 1, and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi*.

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi	and	1	10	Māgha	sudi or sukla.
16	10	Phālguna	„	„	1	11	Phālguna	„
16	11	Chaitra	„	„	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	„	„	1	1	Vaisākha	„
16	1	Jyaistha	„	„	1	2	Jyaistha	„
16	2	Asādha	„	„	1	3	Asādha	„
16	3	Srāvana	„	„	1	4	Srāvana	„
16	4	Bhādra	„	„	1	5	Bhādra	„
16	5	Asvina (N.Y.)	„	„	1	6	Asvina	„
16	6	Kārtika	„	„	1	7	Kārtika	„ (new year)
16	7	Agrahā.	„	„	1	8	Mārga.	„
16	8	Pāusa	„	„	1	9	Pausa	„

The first figure in the longitude of a planet indicates the sign or *rāsi* of the *nirayana* zodiac, *viz*. 0 means that the planet is in Mesha (Aries). 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc., as shown in the last column of the symbols given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rāsi*.

SYMBOLS

☉—Sun	*Ravi, Sūrya*
☽—Moon	*Candra*
☿—Mercury	*Budha*
♀—Venus	*Śukra, Bhṛgu*
♂—Mars.	*Maṅgala, Kuja*
♃—Jupiter	*Bṛhaspati, Guru*
♄—Saturn	*Śani*
♅—Uranus or Herschel	*Indra, Prajāpati*
♆—Neptune	*Varuṇa*
♇—Pluto	*Rudra, Yama*
☊—Ascending Node or Dragon's head	*Rāhu*
☋—D. Node, Dragon's tail	*Ketu*
⊕—Earth	*Pṛthivī*

♈—Aries	0	*Meṣa*
♉—Taurus	1	*Vṛṣa*
♊—Gemini	2	*Mithuna*
♋—Cancer	3	*Karkaṭa*
♌—Leo	4	*Siṁha*
♍—Virgo	5	*Kanyā*
♎—Libra	6	*Tulā*
♏—Scorpio	7	*Vṛścika*
♐—Sagittarius	8	*Dhanus*
♑—Capricornus	9	*Makara*
♒—Aquarius	10	*Kumbha*
♓—Pisces	11	*Mīna*

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

Standard time=Local time − 4 (E. Long.—82° 30′) mins. of time
or =Local time + 4 (82° 30′ − E. Long.) mins. of time.

Afterwards old Railway time, the same as the local time of Madras ($5^h\ 21^m$ ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. From 1st Sept. 1947, Indian Standard Time was introduced all over India. Other changes of timings during the war period and afterwards are noted below :—

		Reduction to I.S.T.
In Calcutta ... before 1st Oct., 1941 ...	Calcutta time	—0*h* 23*m*
In whole of Bengal from 1-10-41 to 14-5-42 ...	Bengal time	—1*h* 0*m*
" " " 15-5-42 to 31-8-42 ...	I. S. T.	0*h* 0*m*
" " " 1-9-42 to 31-8-47 ...	Bengal time	—1*h* 0*m*
In West Bengal since 1st September, 1947 ...	I.S.T.	0*h* 0*m*
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45 and Bihar from 1-12-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time (otherwise I.S.T) ...	...	—1*h* 0*m*

East Pakistan observed Bengal time for civil purposes and Pakistan standard time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51. From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30*m* more than I.S.T. and West Pakistan (now Pakistan) standard time is 30*m* less than I.S.T.

1900 A.D. 1306-07 B.S. *Ayanamsa* 22° 27' 59" CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ Wednes.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 7	24	9	8	6	0	7	9	55	8	26	25	8	24	19	9	21	59	8	5	17	8	9	33
14	1	10	8	6	47	7	11	12	9	1	51	9	1	27	10	0	39	8	15	25	8	19	55
21	8	10	8	7	33	7	12	24	9	7	19	9	8	34	10	9	19	8	26	3	9	0	46
28	15	10	8	8	17	7	13	31	9	12	47	9	15	41	10	17	55	9	7	11	9	12	7
Feb. 4	22	10	8	8	58	7	14	33	9	18	17	9	22	48	10	26	29	9	18	52	9	24	3
11	29	10	8	9	37	7	15	29	9	23	48	9	29	53	11	5	1	10	1	10	10	6	37
18	7	11	8	10	13	7	16	18	9	29	19	10	6	57	11	13	28	10	14	1	10	19	37
25	14	11	8	10	45	7	17	0	10	4	50	10	13	59	11	21	52	10	26	58	11	2	12
Mar. 4	21	11	8	11	14	7	17	34	10	10	21	10	21	1	0	0	11	11	8	24	11	12	10
11	28	11	8	11	39	7	17	59	10	15	52	10	28	1	0	8	25	11	15	32	11	16	37
18	5	12	8	11	59	7	18	16	10	21	22	11	4	59	0	16	32	11	16	7	11	14	28
25	12	12	8	12	15	7	18	24	10	26	52	11	11	56	0	24	32	11	11	15	11	8	41
Apr. 1	19	12	8	12	26	7	18	22	11	2	20	11	18	51	1	2	23	11	5	52	11	4	33
8	26	12	8	12	33	7	18	11	11	7	47	11	25	44	1	10	4	11	4	5	11	4	40
15	3	1	8	12	34	7	17	52	11	13	13	0	2	36	1	17	33	11	6	31	11	8	37
22	10	1	8	12	31	7	17	24	11	18	37	0	9	25	1	24	47	11	12	13	11	15	26
29	17	1	8	12	23	7	16	48	11	23	59	0	16	14	2	1	44	11	20	18	11	24	21
May 6	24	1	8	12	11	7	16	6	11	29	19	0	23	1	2	8	18	0	0	14	0	5	1
13	31	1	8	11	54	7	15	19	0	4	37	0	29	47	2	14	24	0	11	51	0	17	20
20	7	2	8	11	34	7	14	28	0	9	52	1	6	31	2	19	54	0	25	6	1	1	15
27	14	2	8	11	10	7	13	34	0	15	5	1	13	15	2	24	38	1	9	48	1	16	23
June 3	21	2	8	10	43	7	12	41	0	20	15	1	19	57	2	28	21	1	25	9	2	1	34
10	28	2	8	10	14	7	11	50	0	25	22	1	26	39	3	0	46	2	9	45	2	15	31
17	3	3	8	9	44	7	11	1	1	0	27	2	3	20	3	1	32	2	22	39	2	27	36
24	10	3	8	9	13	7	10	18	1	5	28	2	10	1	3	0	24	3	3	37	3	7	41
July 1	17	3	8	8	43	7	9	41	1	10	27	2	16	41	2	27	27	3	12	29	3	15	35
8	24	3	8	8	13	7	9	11	1	15	22	2	23	22	2	23	18	3	18	57	3	20	51
15	31	3	8	7	44	7	8	50	1	20	14	3	0	2	2	19	8	3	22	25	3	22	47
22	7	4	8	7	18	7	8	47	1	25	3	3	6	43	2	16	10	3	22	9	3	20	51
29	14	4	8	6	55	7	8	33	1	29	49	3	13	24	2	15	2	3	18	16	3	16	1
Aug. 5	21	4	8	6	35	7	8	38	2	4	30	3	20	6	2	15	48	3	13	17	3	11	53
12	28	4	8	6	19	7	8	52	2	9	9	3	26	49	2	18	10	3	11	23	3	12	14
19	3	5	8	6	8	7	9	14	2	13	43	4	3	33	2	21	51	3	15	2	3	18	20
26	10	5	8	6	1	7	9	45	2	18	14	4	10	18	2	26	33	3	24	4	3	29	9
Sept. 2	17	5	8	5	58	7	10	24	2	22	41	4	17	4	3	2	2	4	6	32	4	12	17
9	24	5	8	6	0	7	11	10	2	27	4	4	23	51	3	8	6	4	20	0	4	25	42
16	31	5	8	6	7	7	12	3	3	1	22	5	0	40	3	14	40	5	3	6	5	8	28
23	7	6	8	6	19	7	13	2	3	5	36	5	7	31	3	21	37	5	15	24	5	20	26
30	14	6	8	6	36	7	14	7	3	9	44	5	14	24	3	28	52	5	26	56	6	1	39
Oct. 7	21	6	8	6	56	7	15	17	3	13	46	5	21	17	4	6	23	6	7	46	6	12	12
14	28	6	8	7	21	7	16	32	3	17	44	5	28	13	4	14	6	6	17	56	6	22	5
21	5	7	8	7	50	7	17	51	3	21	33	6	5	10	4	22	0	6	27	22	7	1	7
28	12	7	8	8	23	7	19	14	3	25	15	6	12	9	5	0	4	7	5	42	7	8	43
Nov. 4	19	7	8	8	59	7	20	40	3	28	48	6	19	10	5	8	15	7	11	54	7	13	23
11	26	7	8	9	38	7	22	9	4	2	12	6	26	11	5	16	33	7	13	39	7	12	11
18	3	8	8	10	19	7	23	40	4	5	25	7	3	15	5	24	56	7	8	0	7	3	58
25	10	8	8	11	3	7	25	13	4	8	26	7	10	20	6	3	24	6	29	29	6	27	50
Dec 2	17	8	8	11	49	7	26	48	4	11	11	7	17	25	6	11	55	6	28	13	7	0	3
9	24	8	8	12	36	7	28	23	4	13	40	7	24	32	6	20	29	7	3	52	7	7	23
16	1	9	8	13	25	7	29	58	4	15	50	8	1	39	6	29	6	7	12	35	7	16	45
23	8	9	8	14	14	8	1	34	4	17	37	8	8	47	7	7	46	7	22	31	7	26	56
30	15	9	8	15	4	8	3	9	4	18	57	8	15	55	7	16	26	8	2	56	8	7	30
Jan 6	22	9	8	15	52	8	4	43	4	19	47	8	23	2	7	25	6	8	13	40		—	

Stationary :—Saturn—April 15 R, September 4 D; Jupiter – March 29 R, July 29 D; Mars—; Venus–June 17 R, July 30 D; Mercury—March 16 R, April 8 D, July 19 R, August 12 D, November 10 R, November 30 D.

EPHEMERIS Saka era 1821-22, Saṁvat 1956-57 1900 A.D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 7	7	9	11 14 46	11 28 44	0 12 22	0 25 44	1 8 50	1 21 41	2 4 21
14	14	9	2 16 50	2 29 9	3 11 19	3 23 22	4 5 20	4 17 13	4 29 4
21	20	9	5 10 57	5 22 55	6 5 2	6 17 23	7 0 4	7 13 7	7 26 38
28	27	9	8 10 37	8 25 4	9 9 54	9 25 0	10 10 12	10 25 20	11 10 14
Feb. 4	5	10	11 24 46	0 8 52	0 22 33	1 5 50	1 18 46	2 1 24	2 13 48
11	12	10	2 26 2	3 8 8	3 20 8	4 2 5	4 13 59	4 25 51	5 7 44
18	19	10	5 19 39	6 1 38	6 13 45	6 26 4	7 8 39	7 21 36	8 4 57
25	26	10	8 18 47	9 3 7	9 17 54	10 3 2	10 18 22	11 3 42	11 18 51
Mar. 4	3	11	0 3 40	0 18 0	1 1 52	1 15 14	1 28 11	2 10 47	2 23 6
11	11	11	3 5 13	3 17 11	3 29 6	4 10 58	4 22 50	5 4 44	5 16 40
18	17	11	5 28 41	6 10 47	6 23 1	7 5 25	7 18 3	8 0 59	8 14 15
25	24	11	8 27 56	9 12 3	9 26 35	10 11 29	10 26 37	11 11 51	11 26 58
Apr. 1	2	12	0 11 50	0 26 17	1 10 17	1 23 48	2 6 51	2 19 31	3 1 52
8	9	12	3 13 59	3 25 57	4 7 50	4 19 41	5 1 34	5 13 31	5 25 34
15	15	12	6 7 44	6 20 2	7 2 29	7 15 7	7 27 58	8 11 3	8 24 24
22	23	12	9 8 4	9 22 3	10 6 20	10 20 55	11 5 41	11 20 33	0 5 21
29	30	12	0 19 59	1 4 19	1 18 16	2 1 48	2 14 56	2 27 40	3 10 6
May 6	7	1	3 22 16	4 4 16	4 16 9	4 28 2	5 9 57	5 21 58	6 4 7
13	14	1	6 16 27	6 29 0	7 11 45	7 24 43	8 7 55	8 21 20	9 4 57
20	21	1	9 18 47	10 2 49	10 17 0	11 1 20	11 15 44	0 0 9	0 14 30
27	29	1	0 28 42	1 12 42	1 26 24	2 9 47	2 22 51	3 5 35	3 18 1
June 3	6	2	4 0 13	4 12 15	4 24 10	5 6 3	5 17 59	6 0 2	6 12 16
10	12	2	6 24 45	7 7 29	7 20 32	8 3 52	8 17 29	9 1 20	9 15 23
17	20	2	9 29 34	10 13 48	10 28 4	11 12 18	11 26 28	0 10 31	0 24 26
24	27	2	1 8 11	1 21 45	2 5 5	2 18 11	3 1 3	3 13 39	3 26 1
July 1	4	3	4 8 11	4 20 12	5 2 6	5 13 59	5 25 54	6 7 57	6 20 11
8	11	3	7 2 43	7 15 35	7 28 49	8 12 26	8 26 26	9 10 44	9 25 14
15	18	3	10 9 51	10 24 28	11 8 58	11 23 17	0 7 23	0 21 14	1 4 50
22	26	3	1 18 13	2 1 23	2 14 21	2 27 8	3 9 43	3 22 7	4 4 21
29	3	4	4 16 26	4 28 23	5 10 15	5 22 6	6 3 59	6 15 59	6 28 11
Aug. 5	9	4	7 10 41	7 23 33	8 6 51	8 20 36	9 4 49	9 19 25	10 4 18
12	17	4	10 19 20	11 4 20	11 19 10	0 3 43	0 17 55	1 1 45	1 15 14
19	24	4	1 28 24	2 11 19	2 23 59	3 6 29	3 18 49	4 1 1	4 13 5
26	1	5	4 25 3	5 6 56	5 18 46	6 0 36	6 12 28	6 24 26	7 6 36
Sept. 2	8	5	7 19 2	8 1 50	8 15 4	8 28 47	9 13 0	9 27 41	10 12 43
9	15	5	10 27 59	11 13 16	11 28 24	0 13 13	0 27 37	1 11 35	1 25 8
16	23	5	2 8 16	2 21 4	3 3 36	3 15 55	3 28 4	4 10 6	4 22 2
23	30	5	5 3 55	5 15 46	5 27 37	6 9 28	6 21 23	7 3 25	7 15 36
30	6	6	7 28 2	8 10 47	8 23 55	9 7 30	9 21 34	10 6 5	10 21 0
Oct. 7	14	6	11 6 12	11 21 31	0 6 44	0 21 43	1 6 20	1 20 29	2 4 10
14	21	6	2 17 25	3 0 16	3 12 47	3 25 2	4 7 6	4 19 3	5 0 55
21	28	6	5 12 46	5 24 37	6 6 30	6 18 28	7 0 32	7 12 43	7 25 5
28	5	7	8 7 39	8 20 29	9 3 37	9 17 7	10 0 59	10 15 15	10 29 51
Nov. 4	12	7	11 14 43	11 29 45	0 14 47	0 29 41	1 14 18	1 28 33	2 12 22
11	20	7	2 25 44	3 8 42	3 21 18	4 3 36	4 15 40	4 27 36	5 9 26
18	27	7	5 21 16	6 3 9	6 15 8	6 27 15	7 9 31	7 21 59	8 4 39
25	3	8	8 17 31	9 0 37	9 13 58	9 27 32	10 11 22	10 25 26	11 9 43
Dec. 2	11	8	11 24 10	0 8 45	0 23 21	1 7 52	1 22 14	2 6 21	2 20 7
9	18	8	3 3 32	3 16 34	3 29 14	4 11 36	4 23 43	5 5 39	5 17 30
16	25	8	5 29 20	6 11 15	6 23 17	7 5 32	7 18 1	8 0 46	8 13 48
23	2	9	8 27 5	9 10 37	9 24 22	10 8 15	10 22 16	11 6 21	11 20 29
30	9	9	0 4 38	0 18 47	1 2 55	1 16 56	2 0 51	2 14 36	2 28 7
Jan. 6	17	9	3 11 22	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month					
	Jan. :	7 26 40	7 25 1	7 23 32	7 21 54
	May :	7 20 18	7 18 40	7 17 5	7 15 26
	Sept. :	7 13 48	7 12 12	7 10 34	7 8 58

1901 A.D. 1307-08 B.S. *Ayanamsa* 22° 28′ 49″ CONDENSED

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ Wednes
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 6	22 9	8 15 52	8 4 43	4 19 47	8 23 2	7 25 6	8 13 40	8 18 23
13	29 9	8 16 42	8 6 15	4 20 4	9 0 10	8 3 49	8 24 45	8 29 38
20	7 10	8 17 30	8 7 46	4 19 44	9 7 18	8 12 32	9 6 14	9 11 18
27	14 10	8 18 17	8 9 14	4 18 44	9 14 25	8 21 16	9 18 11	9 23 26
Feb. 3	21 10	8 19 2	8 10 39	4 17 7	9 21 31	8 29 59	10 0 32	10 5 52
10	28 10	8 19 45	8 12 1	4 14 56	9 28 36	9 8 43	10 12 49	10 17 45
17	6 11	8 20 26	8 13 19	4 12 22	10 5 41	9 17 26	10 23 27	10 26 46
24	13 11	8 21 5	8 14 32	4 9 35	10 12 44	9 26 10	10 29 17	10 29 32
Mar. 3	20 11	8 21 40	8 15 40	4 6 53	10 19 45	10 4 53	10 27 43	10 25 10
10	27 11	8 22 11	8 16 43	4 4 30	10 26 45	10 13 36	10 21 12	10 18 35
17	4 12	8 22 39	8 17 39	4 2 37	11 3 44	10 22 18	10 16 18	10 15 40
24	11 12	8 23 3	8 18 28	4 1 19	11 10 41	11 1 0	10 16 11	10 17 28
31	18 12	8 23 28	8 19 10	4 0 40	11 17 36	11 9 41	10 20 10	10 22 49
Apr. 7	25 12	8 23 38	8 19 44	4 0 39	11 24 30	11 18 22	10 27 0	11 0 34
14	1 1	8 23 48	8 20 9	4 1 12	0 1 21	11 27 2	11 5 50	11 10 6
21	8 1	8 23 54	8 20 26	4 2 15	0 8 12	0 5 41	11 16 13	11 21 7
28	15 1	8 23 54	8 20 34	4 3 46	0 15 1	0 14 20	11 28 3	0 3 33
May 5	22 1	8 23 50	8 20 32	4 5 41	0 21 48	0 22 58	0 11 18	0 17 25
12	29 1	8 23 42	8 20 22	4 7 56	0 28 34	1 1 36	0 25 54	1 2 25
19	5 2	8 23 29	8 20 2	4 10 29	1 5 19	1 10 13	1 11 8	1 17 33
26	12 2	8 23 12	8 19 34	4 13 18	1 12 2	1 18 49	1 25 41	2 1 24
June 2	19 2	8 22 51	8 18 58	4 16 19	1 18 45	1 27 25	2 8 23	2 13 9
9	26 2	8 22 26	8 18 16	4 19 32	1 25 26	2 6 1	2 18 49	2 22 32
16	2 3	8 21 59	8 17 28	4 22 56	2 2 8	2 14 36	2 26 46	2 29 19
23	9 3	8 21 30	8 16 36	4 26 29	2 8 49	2 23 10	3 1 51	3 3 1
30	16 3	8 21 0	8 15 43	5 0 10	2 15 29	3 1 45	3 3 31	3 3 5
July 7	23 3	8 20 29	8 14 50	5 3 58	2 22 9	3 10 19	3 1 31	2 29 49
14	30 3	8 19 59	8 13 57	5 7 54	2 28 50	3 18 51	2 27 14	2 25 27
21	5 4	8 19 29	8 13 8	5 11 56	3 5 31	3 27 24	2 23 50	2 23 28
28	12 4	8 19 1	8 12 26	5 16 4	3 12 12	4 5 56	2 23 19	2 26 1
Aug. 4	19 4	8 18 35	8 11 49	5 20 16	3 18 54	4 14 27	2 29 43	3 3 29
11	26 4	8 18 12	8 11 20	5 24 35	3 25 36	4 22 57	3 9 40	3 14 59
18	2 5	8 17 53	8 10 59	5 28 59	4 2 20	5 1 26	3 22 40	3 28 40
25	9 5	8 17 37	8 10 47	6 3 47	4 9 5	5 9 54	4 6 40	4 12 34
Sept. 1	16 5	8 17 26	8 10 45	6 8 0	4 15 51	5 18 21	4 20 12	4 25 44
8	23 5	8 17 20	8 10 51	6 12 38	4 22 38	5 26 46	5 2 49	5 7 55
15	30 5	8 17 18	8 11 13	6 17 19	4 29 27	6 5 9	5 14 29	5 19 13
22	6 6	8 17 21	8 11 32	6 22 6	5 6 17	6 13 31	5 25 17	5 29 39
29	13 6	8 17 29	8 12 6	6 26 56	5 13 9	6 21 50	6 5 15	6 9 15
Oct. 6	20 6	8 17 42	8 12 47	7 1 49	5 20 3	7 0 6	6 14 15	6 17 43
13	27 6	8 17 59	8 13 37	7 6 47	5 26 58	7 8 20	6 21 51	6 24 27
20	3 7	8 18 21	8 14 33	7 11 48	6 3 55	7 16 31	6 26 57	6 27 51
27	10 7	8 18 47	8 15 35	7 16 53	6 10 54	7 24 37	6 27 17	6 25 17
Nov. 3	17 7	8 19 16	8 16 44	7 22 2	6 17 54	8 2 38	6 20 46	6 16 53
10	24 7	8 19 50	8 17 58	7 27 13	6 24 55	8 10 33	6 13 1	6 11 58
17	1 8	8 20 25	8 19 17	8 2 28	7 1 59	8 18 20	6 13 7	6 15 28
24	8 8	8 21 6	8 20 40	8 7 45	7 9 3	8 25 56	6 19 51	6 23 45
Dec. 1	15 8	8 21 48	8 22 6	8 13 5	7 16 8	9 3 20	6 29 23	7 3 48
8	22 8	8 22 33	8 23 36	8 18 27	7 23 15	9 10 28	7 9 49	7 14 23
15	29 8	8 23 19	8 25 9	8 23 52	8 0 22	9 17 14	7 20 33	7 25 11
22	7 9	8 24 7	8 26 43	8 29 19	8 7 29	9 23 32	8 1 25	8 6 7
29	14 9	8 24 56	8 28 20	9 4 47	8 14 37	9 29 13	8 12 27	8 17 13
Jan. 5	21 9	8 25 44	8 29 57	9 10 15	8 21 44	10 4 3	8 23 42	—

Stationary **:—Saturn—April 26 R, September 15 D; Jupiter—May 1 R, August 31D; Mars—January 14R, April 5D; Venus—; Mercury—Feb. 27R, March 21 D, June 30 R, July 25 D, October 25 R, November 14 D.**

EPHEMERIS Śaka era 1822-23, Saṁvat 1957-58 1901 A.D.

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ठ) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 6	17	9	3 11 22	3 24 19	4 6 58	4 19 20	5 1 28	5 13 25	5 25 16
13	23	9	6 7 5	6 18 59	7 1 3	7 13 20	7 25 56	8 8 54	8 22 13
20	30	9	9 5 55	9 19 54	10 4 8	10 18 29	11 2 53	11 17 14	0 1 29
27	8	10	0 15 34	0 29 31	1 13 18	1 26 56	2 10 25	2 23 44	3 6 52
Feb. 3	15	10	3 19 48	4 2 32	4 15 1	4 27 18	5 9 23	5 21 18	6 3 8
10	22	10	6 14 56	6 26 48	7 8 49	7 21 5	8 3 41	8 16 42	9 0 9
17	28	10	9 14 3	9 28 21	10 12 59	10 27 47	11 12 38	11 27 23	0 11 56
24	6	11	0 26 13	1 10 12	1 23 54	2 7 20	2 20 31	3 3 30	3 16 17
Mar. 3	13	11	3 28 54	4 11 20	4 23 36	5 5 43	5 17 41	5 29 33	6 11 21
10	20	11	6 23 9	7 5 0	7 17 0	7 29 14	8 11 47	8 24 43	9 8 8
17	27	11	9 22 1	10 6 23	10 21 10	11 6 12	11 21 22	0 6 28	0 21 22
24	4	12	1 5 57	1 20 10	2 3 59	2 17 26	3 0 33	3 13 22	3 25 56
31	12	12	4 8 18	4 20 30	5 2 33	5 14 30	5 26 23	6 8 12	6 20 0
Apr. 7	18	12	7 1 50	7 13 44	7 25 46	8 8 1	8 20 33	9 3 27	9 16 45
14	25	12	10 0 30	10 14 44	10 29 23	11 14 22	11 29 34	0 14 47	0 29 53
21	3	1	1 14 43	1 29 10	2 13 12	2 26 48	3 9 59	3 22 48	4 5 18
28	10	1	4 17 33	4 29 37	5 11 32	5 23 23	6 5 12	6 17 1	6 28 52
May 5	17	1	7 10 47	7 22 49	8 5 1	8 17 24	9 0 2	9 12 58	9 26 14
12	24	1	10 9 52	10 23 54	11 8 18	11 23 1	0 7 59	0 23 3	1 8 5
19	1	2	1 22 56	2 7 30	2 21 40	3 5 24	3 18 42	4 1 35	4 14 6
26	9	2	4 26 21	5 8 22	5 20 15	6 2 3	6 13 51	6 25 43	7 7 39
June 2	15	2	7 19 44	8 1 59	8 14 26	8 27 5	9 9 57	9 23 4	10 6 27
9	22	2	10 20 5	11 4 0	11 18 10	0 2 35	0 17 11	1 1 54	1 16 37
16	30	2	2 1 16	2 15 41	2 29 49	3 13 33	3 26 54	4 9 50	4 22 24
23	7	3	5 4 39	5 16 40	5 28 33	6 10 22	6 22 11	7 4 6	7 16 10
30	14	3	7 28 26	8 10 55	8 23 40	9 6 40	9 19 54	10 3 21	10 17 0
July 7	21	3	11 0 48	11 14 45	11 28 49	0 13 0	0 27 17	1 11 36	1 25 56
14	28	3	2 10 11	2 24 17	3 8 9	3 21 44	4 4 58	4 17 51	5 0 23
21	6	3	5 12 38	5 24 40	6 6 32	6 18 21	7 0 11	7 12 9	7 24 18
28	12	3	8 6 43	8 19 26	9 2 28	9 15 49	9 29 28	10 13 20	10 27 22
Aug. 4	19	3	11 11 29	11 25 39	0 9 49	0 23 57	1 8 2	1 22 4	2 6 0
11	27	3	2 19 51	3 3 32	3 17 2	4 0 18	4 13 17	4 26 0	5 8 26
18	4	4	5 20 37	6 2 36	6 14 26	6 26 14	7 8 4	7 20 2	8 2 13
25	11	4	8 14 41	8 27 31	9 10 45	9 24 22	10 8 21	10 22 37	11 7 5
Sept. 1	18	4	11 21 37	0 6 9	0 20 34	1 4 51	1 18 56	2 2 50	2 16 32
8	26	4	3 0 3	3 13 21	3 26 28	4 9 22	4 22 3	5 4 31	5 16 45
15	3	5	5 28 49	6 10 44	6 22 32	7 4 18	7 16 7	7 28 3	8 10 13
22	9	5	8 22 40	9 5 29	9 18 44	10 2 26	10 16 35	11 1 6	11 15 53
29	16	5	0 0 48	0 15 44	1 0 32	1 15 6	1 29 24	2 13 22	2 27 1
Oct. 6	24	5	3 10 21	3 23 25	4 6 13	4 18 48	5 1 11	5 13 23	5 25 26
13	1	6	6 7 22	6 19 12	7 0 58	7 12 45	7 24 34	8 6 31	8 18 38
20	8	6	9 1 2	9 13 47	9 26 56	10 10 32	10 24 36	11 9 6	11 23 58
27	15	6	0 9 4	0 24 16	1 9 24	1 24 19	2 8 54	2 23 6	3 6 52
Nov. 3	22	6	3 20 14	4 3 13	4 15 52	4 28 15	5 10 25	5 22 26	6 4 19
10	29	6	6 16 8	6 27 55	7 9 43	7 21 33	8 3 27	8 15 29	8 27 41
17	6	7	9 10 6	9 22 43	10 5 50	10 19 15	11 3 6	11 17 22	0 2 1
24	13	7	0 17 0	1 2 11	1 17 25	2 2 31	2 17 21	3 1 48	3 15 47
Dec. 1	21	7	3 29 18	4 12 21	4 25 0	5 7 19	5 19 24	6 1 18	6 13 6
8	28	7	6 24 52	7 6 40	7 18 31	8 0 28	8 12 33	8 24 46	9 7 10
15	4	8	9 19 45	10 2 33	10 15 36	10 28 57	11 12 36	11 26 35	0 10 54
22	12	8	0 25 32	1 10 25	1 25 25	2 10 24	2 25 13	3 9 44	3 23 51
29	19	8	4 7 29	4 20 40	5 3 24	5 15 45	5 27 50	6 9 43	6 21 31
Jan. 5	26	8	7 3 17	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month				
Jan. :	7 7 19	7 5 40	7 4 12	7 2 33
May. :	7 0 58	6 29 19	6 27 44	6 26 5
Sept. :	6 24 27	6 22 52	6 21 13	6 19 38

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			शा ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 5	21	9	8	25	44	8	29	57	9	10	15	8	21	44	10	4	3	8	23	42	8	28	38
12	28	9	8	26	34	9	1	35	9	15	46	8	28	53	10	7	50	9	5	17	9	10	20
19	6	10	8	27	23	9	3	14	9	21	17	9	6	0	10	10	13	9	17	8	9	22	11
26	13	10	8	28	13	9	4	53	9	26	50	9	13	8	10	10	49	9	28	43	10	3	16
Feb. 2	20	10	8	29	1	9	6	31	10	2	23	9	20	14	10	9	24	10	8	28	10	11	17
9	27	10	8	29	47	9	8	7	10	7	54	9	27	20	10	6	9	10	12	57	10	12	23
16	4	11	9	0	33	9	9	43	10	13	27	10	4	24	10	1	53	10	9	23	10	6	9
23	11	11	9	1	15	9	11	16	10	18	57	10	11	27	9	27	58	10	1	55	9	29	35
Mar. 2	18	11	9	1	56	9	12	47	10	24	28	10	18	29	9	25	32	9	28	5	9	28	8
9	25	11	9	2	34	9	14	15	10	29	57	10	25	30	9	25	6	9	29	34	10	1	28
16	2	12	9	3	8	9	15	39	11	5	25	11	2	29	9	26	32	10	4	50	10	7	54
23	9	12	9	3	39	9	16	59	11	10	51	11	9	26	9	29	30	10	12	31	10	16	21
30	16	12	9	4	7	9	18	15	11	16	16	11	16	21	10	3	42	10	21	52	10	26	17
Apr. 6	23	12	9	4	30	9	19	26	11	21	38	11	23	15	10	8	48	11	2	32	11	7	30
13	30	12	9	4	49	9	20	31	11	26	59	0	0	8	10	14	35	11	14	27	11	19	56
20	7	1	9	5	3	9	21	30	0	2	17	0	6	58	10	20	53	11	27	38	0	3	39
27	14	1	9	5	13	9	22	22	0	7	33	0	13	47	10	27	36	0	12	0	0	18	26
May 4	21	1	9	5	18	9	23	7	0	12	46	0	20	35	11	4	37	0	27	3	1	3	23
11	28	1	9	5	18	9	23	44	0	17	57	0	27	21	11	11	53	1	11	26	1	17	2
18	4	2	9	5	13	9	24	12	0	23	5	1	4	6	11	19	21	1	23	47	1	28	16
25	11	2	9	5	4	9	24	33	0	28	11	1	10	50	11	26	58	2	3	27	2	6	41
June 1	18	2	9	4	50	9	24	43	1	3	14	1	17	32	0	4	42	2	10	6	2	11	56
8	25	2	9	4	33	9	24	45	1	8	15	1	24	14	0	12	33	2	13	22	2	13	38
15	1	3	9	4	11	9	24	37	1	13	12	2	0	56	0	20	30	2	12	58	2	11	49
22	8	3	9	3	47	9	24	18	1	18	7	2	7	37	0	28	31	2	9	40	2	7	56
29	15	3	9	3	19	9	23	54	1	22	59	2	14	17	1	6	36	2	5	56	2	4	59
July 6	22	3	9	2	50	9	23	18	1	27	49	2	20	58	1	14	46	2	4	45	2	5	26
13	29	3	9	2	19	9	22	39	2	2	36	2	27	38	1	22	58	2	7	34	2	10	4
20	4	4	9	1	49	9	21	52	2	7	21	3	4	19	2	1	14	2	14	33	2	18	44
27	11	4	9	1	17	9	21	1	2	12	3	3	11	0	2	9	32	2	25	17	3	0	48
Aug. 3	18	4	9	0	48	9	20	6	2	16	42	3	17	42	2	17	54	3	8	44	3	14	55
10	25	4	9	0	20	9	19	12	2	21	19	3	24	24	2	26	18	3	23	9	3	29	17
17	1	5	8	29	54	9	18	18	2	25	53	4	1	8	3	4	45	4	7	8	4	12	48
24	8	5	8	29	32	9	17	28	3	0	24	4	7	52	3	13	15	4	20	2	4	25	13
31	15	5	8	29	13	9	16	43	3	4	53	4	14	38	3	21	47	5	1	50	5	6	34
Sept. 7	22	5	8	28	58	9	16	5	3	9	20	4	21	25	4	0	22	5	12	36	5	16	54
14	29	5	8	28	48	9	15	34	3	13	43	4	28	13	4	8	58	5	22	20	5	26	9
21	5	6	8	28	42	9	15	11	3	18	4	5	5	3	4	17	37	6	0	51	6	4	1
28	12	6	8	28	42	9	14	59	3	22	22	5	11	55	4	26	19	6	7	39	6	9	47
Oct. 5	19	6	8	28	45	9	14	55	3	26	36	5	18	48	5	5	0	6	11	34	6	11	51
12	26	6	8	28	54	9	15	1	4	0	47	5	25	43	5	13	44	6	10	28	6	8	0
19	2	7	8	29	8	9	15	17	4	4	55	6	2	40	5	22	29	6	3	21	5	29	49
26	9	7	8	29	26	9	15	42	4	8	59	6	9	38	6	1	14	5	26	41	5	26	16
Nov. 2	16	7	8	29	48	9	16	17	4	12	58	6	16	38	6	10	1	5	28	9	6	0	59
9	23	7	9	0	15	9	16	59	4	16	53	6	23	40	6	18	48	6	5	56	6	10	11
16	30	7	9	0	46	9	17	50	4	20	42	7	0	42	6	27	36	6	16	13	6	20	53
23	7	8	9	1	20	9	18	48	4	24	26	7	7	46	7	6	23	6	27	10	7	1	53
30	14	8	9	1	58	9	19	53	4	28	3	7	14	52	7	15	12	7	8	11	7	12	55
Dec. 7	21	8	9	2	38	9	21	3	5	1	34	7	21	58	7	24	0	7	19	11	7	23	54
14	28	8	9	3	21	9	22	20	5	4	55	7	29	5	8	2	49	8	0	11	8	4	56
21	6	9	9	4	6	9	23	41	5	8	7	8	6	12	8	11	36	8	11	17	8	16	5
28	13	9	9	4	53	9	25	6	5	11	7	8	13	20	8	20	25	8	22	31	8	27	22
Jan. 4	20	9	9	5	40	9	26	35	5	13	53	8	20	27	8	29	12	9	3	48	—		

Stationary :—Saturn—May 9R, September 27 D; Jupiter—June 7 R, October 5 D: Mars—; Venus—Jan. 25 R March 8 D; Mercury—Feb. 10 R, March 3 D, June 12 R, July 6 D, October 8 R, October 29 D.

EPHEMERIS Saka era 1823-24, Saṁvat 1958-59 1902 A.D.

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	26	8	7	3	17	7	15	6	7	27	2	8	9	8	8	21	26	9	3	56	9	16	38
12	3	9	9	29	32	10	12	37	10	25	53	11	9	21	11	23	0	0	6	52	0	20	56
19	10	9	1	5	13	1	19	40	2	4	15	2	18	51	3	3	21	3	17	39	4	1	38
26	18	9	4	15	15	4	28	26	5	11	13	5	23	38	6	5	46	6	17	42	6	29	30
Feb. 2	24	9	7	11	18	7	23	10	8	5	10	8	17	23	8	29	52	9	12	37	9	25	38
9	1	10	10	8	55	10	22	24	11	6	4	11	19	52	0	3	46	0	17	45	1	1	48
16	8	10	1	15	55	2	0	4	2	14	14	2	28	22	3	12	24	3	26	16	4	9	55
23	16	10	4	23	15	5	6	17	5	18	59	6	1	22	6	13	30	6	25	27	7	7	17
Mar 2	23	10	7	19	6	8	0	59	8	13	1	8	25	17	9	7	51	9	20	45	10	4	0
9	29	10	10	17	35	11	1	27	11	15	33	11	29	48	0	14	7	0	28	27	1	12	43
16	7	11	1	26	52	2	10	59	2	24	53	3	8	42	3	22	19	4	5	44	4	18	56
23	14	11	5	1	54	5	14	38	5	27	6	6	9	22	6	21	26	7	3	21	7	15	11
30	21	11	7	27	1	8	8	54	8	20	56	9	3	11	9	15	44	9	28	39	10	11	57
Apr. 6	28	11	10	25	40	11	9	46	11	24	11	0	8	50	0	23	36	1	8	22	1	23	1
13	5	12	2	7	28	2	21	41	3	5	37	3	19	15	4	2	36	4	15	41	4	28	31
20	13	12	5	11	7	5	23	32	6	5	45	6	17	50	6	29	47	7	11	39	7	23	29
27	19	12	8	5	19	8	17	13	8	29	15	9	11	28	9	23	59	10	6	49	10	20	4
May 4	26	12	11	3	44	11	17	51	0	2	21	0	17	12	1	2	15	1	17	22	2	2	23
11	4	1	2	17	11	3	1	39	3	15	43	3	29	23	4	12	40	4	25	34	5	8	11
18	11	1	5	20	33	6	2	43	6	14	44	6	26	39	7	8	31	7	20	20	8	2	11
25	18	1	8	14	3	8	26	1	9	8	6	9	20	21	10	2	51	10	15	38	10	28	46
June 1	25	1	11	12	18	11	26	17	0	10	41	0	25	29	1	10	34	1	25	48	2	11	1
8	2	2	2	26	3	3	10	45	3	25	0	4	8	48	4	22	6	5	5	0	5	17	32
15	10	2	5	29	47	6	11	49	6	23	43	7	5	33	7	17	22	7	29	12	8	11	6
22	16	2	8	23	5	9	5	10	9	17	22	9	29	46	10	12	20	10	25	9	11	8	15
29	23	2	11	21	41	0	5	30	0	19	42	1	4	17	1	19	11	2	4	17	2	19	26
July 6	1	3	3	4	28	3	19	13	4	3	34	4	17	27	5	0	50	5	13	46	5	26	19
13	8	3	6	8	33	6	20	34	7	2	26	7	14	15	7	26	5	8	7	58	8	19	58
20	15	3	9	2	5	9	14	22	9	26	48	10	9	25	10	22	12	11	5	11	11	18	23
27	22	3	0	1	51	0	15	35	0	29	37	1	13	57	1	28	33	2	13	20	2	28	11
Aug. 3	30	3	3	12	58	3	27	33	4	11	48	4	25	38	5	9	1	5	21	59	6	4	34
10	7	4	6	16	49	6	28	51	7	10	45	7	22	35	8	4	27	8	16	24	8	28	30
17	13	4	9	10	47	9	23	17	10	5	59	10	18	54	11	2	1	11	15	19	11	28	48
24	20	4	0	12	28	0	26	18	1	10	19	1	24	29	2	8	49	2	23	13	3	7	39
31	28	4	3	22	1	4	6	13	4	20	9	5	3	46	5	17	2	5	29	55	6	12	29
Sept. 7	5	5	6	24	45	7	6	48	7	18	43	8	0	34	8	12	28	8	24	27	9	6	37
14	12	5	9	19	1	10	1	40	10	14	37	10	27	51	11	11	20	11	25	3	0	8	57
21	19	5	0	22	59	1	7	7	1	21	18	2	5	31	2	19	42	3	3	50	3	17	52
28	27	5	4	1	47	4	15	30	4	29	1	5	11	16	5	25	16	6	7	58	6	20	25
Oct. 5	4	6	7	2	38	7	14	41	7	26	35	8	8	27	8	20	20	9	2	18	9	14	28
12	10	6	9	26	52	10	9	35	10	22	39	11	6	5	11	19	53	0	3	59	0	18	20
19	17	6	1	2	51	1	17	26	2	1	59	2	16	25	3	0	40	3	14	42	3	28	30
26	25	6	4	12	4	4	25	23	5	8	28	5	21	20	6	3	59	6	16	26	6	28	42
Nov. 2	2	7	7	10	49	7	22	47	8	4	41	8	16	31	8	28	23	9	10	19	9	22	25
9	9	7	10	4	46	10	17	24	11	0	26	11	13	53	11	27	46	0	12	5	0	26	46
16	16	7	1	11	41	1	26	44	2	11	43	2	26	33	3	11	3	3	25	12	4	8	59
23	24	7	4	22	23	5	5	28	5	18	14	6	0	47	6	13	8	6	25	20	7	7	25
30	1	8	7	19	23	8	1	18	8	13	10	8	25	1	9	6	53	9	18	49	10	0	53
Dec. 7	7	8	10	13	9	10	25	41	11	8	34	11	21	52	0	5	39	0	19	54	1	4	37
14	14	8	1	19	42	2	5	0	2	20	20	3	5	30	3	20	21	4	4	46	4	18	42
21	22	8	5	2	10	5	15	11	5	27	52	6	10	15	6	22	25	7	4	26	7	16	22
28	29	8	7	28	15	8	10	7	8	21	59	9	3	52	9	15	47	9	27	48	10	9	56
Jan. 4	5	9	10	22	13		—			—			—			—			—			—	

Rahu (रा ☊ ञा) on 1st of each month

Jan. :	6 17 58	6 16 20	6 14 51	6 13 10
May :	6 11 37	6 9 59	6 8 23	6 6 45
Sept. :	6 5 6	6 3 31	6 1 52	6 0 17

1903 A.D. 1309-10 B.S. *Ayanamsa* 22° 30′ 20″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																		♀ Wednes.		
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु					
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 4	20	9	9	5	41	9	26	36	5	13	54	8	20	28	8	29	13	9	3	49	9	8	35
11	27	9	9	6	31	9	28	8	5	16	27	8	27	36	9	8	11	9	14	41	9	18	51
18	4	10	9	7	20	9	29	43	5	18	42	9	4	44	9	16	48	9	23	28	9	25	46
25	11	10	9	8	10	10	1	20	5	20	37	9	11	51	9	25	34	9	26	35	9	25	16
Feb. 1	18	10	9	9	0	10	2	59	5	22	7	9	18	58	10	4	20	9	21	16	9	17	38
8	25	10	9	9	49	10	4	39	5	23	11	9	26	4	10	13	5	9	13	31	9	11	40
15	3	11	9	10	37	10	6	21	5	23	44	10	3	9	10	21	49	9	11	1	9	11	45
22	10	11	9	11	24	10	8	1	5	23	42	10	10	12	11	0	31	9	13	59	9	16	23
Mar. 1	17	11	9	12	8	10	9	43	5	23	2	10	17	14	11	9	13	9	20	19	9	23	41
8	24	11	9	12	51	10	11	23	5	21	45	10	24	15	11	17	52	9	28	39	10	2	40
15	1	12	9	13	52	10	13	2	5	19	52	11	1	14	11	26	29	10	8	22	10	12	52
22	8	12	9	14	8	10	14	39	5	17	30	11	8	11	0	5	3	10	19	11	10	24	9
29	15	12	9	14	42	10	16	15	5	14	51	11	15	7	0	13	36	11	1	5	11	6	32
Apr. 5	22	12	9	15	13	10	17	48	5	12	9	11	22	1	0	22	6	11	14	6	11	20	2
12	29	12	9	15	40	10	19	19	5	9	40	11	28	53	1	0	33	11	28	13	0	4	30
19	6	1	9	16	2	10	20	46	5	7	35	0	5	44	1	8	57	0	12	57	0	19	10
26	13	1	9	16	21	10	22	10	5	6	4	0	12	34	1	17	18	0	27	4	1	2	29
May 3	20	1	9	16	34	10	23	29	5	5	10	0	19	22	1	25	34	1	8	53	1	13	0
10	27	1	9	16	44	10	24	43	5	4	56	0	26	8	2	3	47	1	17	30	1	20	5
17	3	2	9	16	48	10	25	52	5	5	18	1	2	53	2	11	54	1	22	27	1	23	21
24	10	2	9	16	47	10	26	56	5	6	14	1	9	37	2	19	57	1	23	28	1	22	47
31	17	2	9	16	43	10	27	52	5	7	40	1	16	20	2	27	52	1	21	3	1	19	26
June 7	24	2	9	16	32	10	28	42	5	9	33	1	23	2	3	5	41	1	17	16	1	15	59
14	31	2	9	16	19	10	29	24	5	11	48	1	29	43	3	13	21	1	15	5	1	15	9
21	6	3	9	16	1	10	29	59	5	14	24	2	6	24	3	20	51	1	16	18	1	17	58
28	13	3	9	15	39	11	0	24	5	17	18	2	13	5	3	28	8	1	21	13	1	24	23
July 5	20	3	9	15	13	11	0	40	5	20	27	2	19	46	4	5	10	1	29	33	2	4	5
12	27	3	9	14	46	11	0	47	5	23	49	2	26	26	4	11	54	2	10	57	2	16	39
19	3	4	9	14	17	11	0	45	5	27	23	3	3	6	4	18	15	2	24	46	3	1	6
26	10	4	9	13	46	11	0	33	6	1	9	3	9	48	4	24	5	3	9	35	3	15	50
Aug. 2	17	4	9	13	15	11	0	11	6	5	4	3	16	29	4	29	18	3	23	54	3	29	41
9	24	4	9	12	44	10	29	41	6	9	8	3	23	12	5	3	41	4	7	3	4	12	19
16	31	4	9	12	14	10	29	3	6	13	20	3	29	55	5	6	58	4	18	59	4	23	41
23	6	5	9	11	46	10	28	18	6	17	40	4	6	39	5	8	53	4	29	38	5	3	51
30	13	5	9	11	20	10	27	28	6	22	6	4	13	25	5	9	3	5	9	6	5	12	43
Sept. 6	20	5	9	10	59	10	26	33	6	26	40	4	20	11	5	7	20	5	17	4	5	19	54
13	27	5	9	10	40	10	25	37	7	1	19	4	27	0	5	3	54	5	22	57	5	24	34
20	3	6	9	10	26	10	24	42	7	6	4	5	3	49	4	29	40	5	25	32	5	25	11
27	10	6	9	10	16	10	23	50	7	10	54	5	10	41	4	25	52	5	23	1	5	20	14
Oct. 4	17	6	9	10	11	10	23	1	7	15	49	5	17	34	4	23	35	5	15	43	5	12	41
11	24	6	9	10	11	10	22	18	7	20	48	5	24	28	4	23	14	5	10	30	5	10	42
18	1	7	9	10	16	10	21	44	7	25	52	6	1	25	4	24	46	5	13	18	5	16	33
25	8	7	9	10	25	10	21	17	8	1	0	6	8	23	4	27	51	5	22	2	5	26	38
Nov. 1	15	7	9	10	40	10	21	1	8	6	12	6	15	22	5	2	9	6	3	4	6	7	58
8	22	7	9	10	59	10	20	54	8	11	26	6	22	23	5	7	24	6	14	31	6	19	24
15	29	7	9	11	22	10	20	57	8	16	44	6	29	26	5	13	21	6	25	52	7	0	4
22	6	8	9	11	50	10	21	10	8	22	5	7	6	30	5	19	53	7	7	0	7	11	43
29	13	8	9	12	22	10	21	34	8	27	28	7	13	35	5	26	51	7	17	59	7	22	41
Dec. 6	20	8	9	12	57	10	22	7	9	2	53	7	20	41	6	4	9	7	28	55	8	3	35
13	27	8	9	13	35	10	22	48	9	8	20	7	27	48	6	11	43	8	9	48	8	14	27
20	5	9	9	14	17	10	23	37	9	13	48	8	4	55	6	19	30	8	20	33	8	25	2
27	12	9	9	15	0	10	24	34	9	19	17	8	12	3	6	27	28	9	0	39	9	4	26
Jan. 3	19	9	9	15	46	10	25	39	9	24	47	8	19	11	7	5	33	9	8	26		–	

Stationary :—Saturn—May 21 R, Oct. 9 D; Jupiter—July 15 R, Nov. 10 D; Mars—Feb. 19 R, May 10 D; Venus—August 28 R, October 10 D; Mercury—Jan. 21 R, Feb. 15 D, May 23 R, June 16 D, Sept. 21 R, Oct. 13 D.

Date	Tithi & Month		Nirayana Long. of Moon (च ☽ ६) at 5-30 P M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 4	5	9	10	22	14	11	4	44	11	17	32	0	0	41	0	14	16	0	28	18	1	12	49
11	13	9	1	27	43	2	12	56	2	28	17	3	13	34	3	28	36	4	13	13	4	27	22
18	20	9	5	10	59	5	24	8	6	6	52	6	19	15	7	1	23	7	13	21	7	25	13
25	27	9	8	7	3	8	18	54	9	0	48	9	12	47	9	24	51	10	7	2	10	19	21
Feb. 1	4	10	11	1	48	11	14	27	11	27	20	0	10	30	0	23	59	1	7	5	1	22	3
8	11	10	2	6	38	2	21	30	3	6	32	3	21	35	4	6	28	4	21	4	5	5	15
15	19	10	5	18	59	6	2	16	6	15	6	6	27	35	7	9	47	7	21	47	8	3	40
22	26	10	8	15	31	8	27	23	9	9	20	9	21	25	10	3	38	10	16	2	10	28	37
Mar. 1	2	11	11	11	23	11	24	20	0	7	30	0	20	53	1	4	30	1	18	20	2	2	26
8	10	11	2	16	44	3	1	13	3	16	47	4	0	22	4	14	51	4	29	8	5	13	7
15	17	11	5	26	45	6	10	0	6	22	53	7	5	26	7	17	42	7	29	46	8	11	42
22	24	11	8	23	34	9	5	28	9	17	27	9	29	36	10	11	57	10	24	33	11	7	24
29	30	11	11	20	29	0	3	51	0	17	26	1	1	13	1	15	10	1	29	14	2	13	24
Apr. 5	8	12	2	27	37	3	11	51	3	26	2	4	10	9	4	24	9	5	7	57	5	21	33
12	16	12	6	3	53	6	17	56	7	0	43	7	13	14	7	25	30	8	7	35	8	19	32
19	22	12	9	1	25	9	13	19	9	25	19	10	7	29	10	19	53	11	2	35	11	15	37
26	29	19	11	29	0	0	12	43	0	26	45	1	11	0	1	25	25	2	9	53	2	24	19
May 3	6	1	3	8	39	3	22	50	4	6	50	4	20	37	5	4	12	5	17	35	6	0	45
10	14	1	6	13	43	6	26	28	7	9	2	7	21	24	8	3	35	8	15	37	8	27	33
17	21	1	9	9	26	9	21	19	10	3	17	10	15	25	10	27	48	11	10	30	11	23	36
24	27	1	0	7	7	0	21	3	1	5	24	1	20	3	2	4	54	2	19	48	3	4	37
31	5	2	3	19	13	4	3	31	4	17	30	5	1	10	5	14	31	5	27	35	6	10	26
June 7	13	2	6	23	5	7	5	33	7	17	52	8	0	3	8	12	6	8	24	4	9	5	58
14	19	2	9	17	49	9	29	41	10	11	38	10	23	44	11	6	4	11	18	43	0	1	46
21	26	2	0	15	16	0	29	15	1	13	43	1	28	34	2	13	41	2	28	54	3	14	2
28	4	3	3	28	56	4	13	27	4	27	34	5	11	16	5	24	34	6	7	31	6	20	10
July 5	11	3	7	2	36	7	14	52	7	27	0	8	9	1	8	20	58	9	2	52	9	14	44
12	18	3	9	26	35	10	8	29	10	20	28	11	2	35	11	14	55	11	27	32	0	10	31
19	24	3	0	23	56	1	7	49	1	22	12	2	7	0	2	22	8	3	7	26	3	22	42
26	2	4	4	7	47	4	22	30	5	6	47	5	20	36	6	3	58	6	16	56	6	29	33
Aug. 2	10	4	7	11	55	7	24	4	8	6	5	8	18	1	8	29	54	9	11	46	9	23	39
9	16	4	10	5	35	10	17	34	10	29	40	11	11	55	11	24	21	0	7	2	0	20	1
16	23	4	1	3	23	1	17	9	2	1	20	2	15	55	3	0	49	3	15	56	4	1	5
23	1	5	4	16	6	5	0	51	5	15	13	5	29	9	6	12	37	6	25	40	7	8	21
30	8	5	7	20	43	8	2	52	8	14	51	8	26	44	9	8	36	9	20	29	10	2	26
Sept. 6	15	5	10	14	28	10	26	38	11	8	56	11	21	25	0	4	5	0	16	59	1	0	9
13	22	5	1	13	35	1	27	19	2	11	21	2	25	41	3	10	14	3	24	58	4	9	45
20	29	5	4	24	28	5	9	1	5	23	16	6	7	11	6	20	41	7	3	48	7	16	33
27	6	6	7	28	58	8	11	9	8	23	8	9	5	2	9	16	54	9	28	48	10	10	48
Oct. 4	13	6	10	22	58	11	5	19	11	17	53	0	0	41	0	13	44	0	27	0	1	10	30
11	20	6	1	24	12	2	8	4	2	22	7	3	6	17	3	20	33	4	4	52	4	19	12
18	28	6	5	3	27	5	17	36	6	1	32	6	15	13	6	28	37	7	11	40	7	24	25
25	5	7	8	6	52	8	19	3	9	1	3	9	12	57	9	24	48	10	6	42	10	18	44
Nov. 1	11	7	11	0	58	11	13	27	11	26	15	0	9	22	0	22	49	1	6	32	1	20	30
8	18	7	2	4	38	2	18	51	3	3	6	3	17	19	4	1	28	4	15	31	4	29	28
15	26	7	5	13	17	5	26	57	6	10	28	6	23	47	7	6	54	7	19	46	8	2	23
22	3	8	8	14	46	8	26	56	9	8	55	9	20	46	10	2	36	10	14	28	10	26	28
29	10	8	11	8	40	11	21	12	0	4	5	0	17	23	1	1	6	1	15	13	1	29	38
Dec. 6	17	8	2	14	16	2	28	57	3	13	36	3	28	5	4	12	21	4	26	22	5	10	8
13	25	8	5	23	40	6	6	59	6	20	6	7	3	3	7	15	49	7	28	24	8	10	48
20	2	9	8	23	2	9	5	6	9	17	1	9	28	51	10	10	39	10	22	28	11	4	24
27	8	9	11	16	33	11	29	0	0	11	51	0	25	8	1	8	55	1	23	10	2	7	50
Jan. 3	15	9	2	22	49		—			—			—			—			—			—	

Rahu (रा ☊ पा) on 1st of each month	Jan. :	5 28 38	5 26 59	5 25 30	5 23 52
	May :	5 22 16	5 20 38	5 19 3	5 17 27
	Sept. :	5 15 46	5 14 10	5 12 33	5 10 56

1904 A.D. 1310-11 B.S. *Ayanamsa* 22° 31′ 5″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																			
			श ♄ नि			बृ ♃ ह			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			♀ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	19	9	9	15	46	10	25	39	9	24	47	8	19	11	7	5	33	9	8	26	9	10	11
10	26	9	9	16	34	10	26	49	10	0	17	8	26	19	7	13	45	9	10	10	9	8	8
17	3	10	9	17	22	10	28	5	10	5	47	9	3	27	7	22	2	9	3	27	8	29	39
24	10	10	9	18	12	10	29	26	10	11	17	9	10	35	8	0	24	8	25	55	8	24	38
31	17	10	9	19	2	11	0	51	10	16	47	9	17	41	8	8	49	8	24	53	8	25	14
Feb. 7	24	10	9	19	53	11	2	21	10	22	15	9	24	47	8	17	16	8	29	9	9	1	58
14	2	11	9	20	42	11	3	53	10	27	43	10	1	52	8	25	46	9	6	21	9	9	59
21	9	11	9	21	32	11	5	29	11	3	8	10	8	56	9	4	17	9	15	13	9	19	23
28	16	11	9	22	20	11	7	6	11	8	33	10	15	59	9	12	49	9	25	12	9	29	46
Mar. 6	23	11	9	23	7	11	8	46	11	13	55	10	22	59	9	21	22	10	6	7	10	11	5
13	30	11	9	23	52	11	10	26	11	19	16	10	29	59	9	29	56	10	17	57	10	23	19
20	7	12	9	24	34	11	12	8	11	24	34	11	6	57	10	8	30	11	0	45	11	6	32
27	14	12	9	25	15	11	13	49	11	29	50	11	13	53	10	17	5	11	14	31	11	20	39
Apr. 3	21	12	9	25	51	11	15	31	0	5	4	11	20	47	10	25	40	11	28	52	0	4	56
10	28	12	9	26	26	11	17	12	0	10	16	11	27	40	11	4	15	0	12	35	0	17	46
17	5	1	9	26	56	11	18	52	0	15	25	0	4	32	11	12	50	0	23	45	0	27	24
24	12	1	9	27	23	11	20	31	0	20	32	0	11	21	11	21	25	1	1	2	1	2	48
May 1	19	1	9	27	45	11	22	8	0	25	36	0	18	9	0	0	1	1	3	51	1	3	42
8	26	1	9	28	3	11	23	44	1	0	38	0	24	56	0	8	34	1	2	26	1	0	53
15	2	2	9	28	16	11	25	16	1	5	37	1	1	41	0	17	9	0	28	32	0	26	54
22	9	2	9	28	26	11	26	46	1	10	33	1	8	26	0	25	44	0	25	22	0	24	53
29	16	2	9	28	29	11	28	12	1	15	28	1	15	9	1	4	18	0	25	15	0	26	19
June 5	23	2	9	28	28	11	29	34	1	20	20	1	21	51	1	12	53	0	28	43	1	1	12
12	30	2	9	28	23	0	0	51	1	25	10	1	28	32	1	21	28	1	5	21	1	9	5
19	5	3	9	28	13	0	2	4	1	29	57	2	5	13	2	0	3	1	14	47	1	19	36
26	12	3	9	27	58	0	3	11	2	4	42	2	11	54	2	8	38	1	26	43	2	2	32
July 3	19	3	9	27	39	0	4	12	2	9	26	2	18	34	2	17	15	2	10	47	2	17	13
10	26	3	9	27	16	0	5	5	2	14	6	2	25	14	2	25	50	2	25	51	3	2	14
17	2	4	9	26	51	0	5	53	2	18	45	3	1	54	3	4	27	3	10	28	3	16	22
24	9	4	9	26	23	0	6	32	2	23	22	3	8	35	3	13	4	3	23	50	3	29	7
31	16	4	9	25	53	0	7	3	2	27	58	3	15	17	3	21	42	4	5	47	4	10	28
Aug. 7	23	4	9	25	22	0	7	25	3	2	31	3	21	59	4	0	20	4	16	20	4	20	25
14	30	4	9	24	51	0	7	38	3	7	4	3	28	42	4	8	58	4	25	25	4	28	47
21	5	5	9	24	20	0	7	41	3	11	34	4	5	26	4	17	37	5	2	43	5	5	8
28	12	5	9	23	50	0	7	34	3	16	3	4	12	11	4	26	15	5	7	32	5	8	34
Sep. 4	19	5	9	23	22	0	7	18	3	20	30	4	18	58	5	3	54	5	8	40	5	7	39
11	26	5	9	22	56	0	6	52	3	24	56	4	25	46	5	13	33	5	4	51	5	1	56
18	2	6	9	22	35	0	6	17	3	29	18	5	2	35	5	22	12	4	27	52	4	25	31
25	9	6	9	22	16	0	5	36	4	3	42	5	9	26	6	0	50	4	24	21	4	25	13
Oct. 2	16	6	9	22	3	0	4	47	4	8	3	5	16	19	6	9	28	4	28	29	5	2	10
9	23	6	9	21	54	0	3	53	4	12	22	5	23	14	6	18	6	5	8	8	5	13	3
16	30	6	9	21	49	0	2	57	4	16	39	6	0	10	6	26	43	5	19	52	5	25	1
23	7	7	9	21	49	0	2	0	4	20	55	6	7	7	7	5	20	6	1	51	6	6	54
30	14	7	9	21	55	0	1	5	4	25	10	6	14	6	7	13	56	6	13	31	6	18	24
Nov 6	21	7	9	22	6	0	0	13	4	29	20	6	21	7	7	22	32	6	24	49	6	29	33
13	28	7	9	22	21	11	29	27	5	3	30	6	28	10	8	1	7	7	5	48	7	10	27
20	5	8	9	22	41	11	28	48	5	7	36	7	5	13	8	9	41	7	16	34	7	21	7
27	12	8	9	23	6	11	28	17	5	11	40	7	12	18	8	18	13	7	27	7	8	1	33
Dec. 4	19	8	9	23	34	11	27	56	5	15	41	7	19	24	8	26	43	8	7	20	8	11	30
11	26	8	9	24	7	11	27	44	5	19	39	7	26	31	9	5	12	8	16	34	8	19	59
18	3	9	9	24	43	11	27	44	5	23	33	8	3	38	9	13	38	8	23	19	8	24	31
25	10	9	9	25	22	11	27	52	5	27	23	8	10	46	9	22	0	8	23	41	8	21	4
Jan. 1	17	9	9	26	5	11	28	11	6	1	7	8	17	54	10	0	18	8	15	54	—		

Stationary :—Saturn—June 2 R, October 20 D ; Jupiter - August 21 R, December 16 D ; Mars ; Venus— ; Mercury—January 9 R, January 29 D, May 3 R, May 26 D, September 3 R, September 26 D, December 23 R.

EPHEMERIS Saka era 1825-26, Saṁvat 1960-61 1904 A.D.

Date	*Tithi & Month*		*Nirayana* Long. of Moon (च) ५ ।) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 3	15	9	2	22	50	3	7	56	3	23	0	4	7	53	4	22	27	5	6	40	5	20	30
10	23	9	6	4	0	6	17	10	7	0	3	7	12	43	7	25	12	8	7	31	8	19	41
17	30	9	9	1	44	9	13	41	9	25	32	10	7	20	10	19	8	11	0	58	11	12	54
24	6	10	11	25	1	0	7	24	0	20	9	1	3	19	1	16	58	2	1	8	2	15	45
31	14	10	3	0	46	3	16	0	4	1	18	4	16	29	5	1	23	5	15	54	5	29	58
Feb. 7	21	10	6	13	37	6	26	51	7	9	43	7	22	17	8	4	36	8	16	45	8	28	45
14	28	10	9	10	39	9	22	30	10	4	19	10	16	8	10	27	59	11	9	54	11	21	56
21	5	11	0	4	8	0	16	35	0	9	19	1	12	24	1	25	54	2	9	51	2	24	13
28	12	11	3	8	59	3	24	2	4	9	14	4	24	25	5	9	26	5	24	8	6	8	26
Mar. 6	20	11	6	22	17	7	5	41	7	18	40	8	1	16	8	13	35	8	25	40	9	7	36
13	27	11	9	19	26	10	1	14	10	13	3	10	24	55	11	6	53	11	18	58	0	1	13
20	3	12	0	13	39	0	26	18	1	9	11	1	22	21	2	5	50	2	19	38	3	3	45
27	11	12	3	18	11	4	2	51	4	17	42	5	2	36	5	17	25	6	2	3	6	16	22
Apr. 3	18	12	7	0	18	7	13	49	7	26	54	8	9	37	8	21	59	9	4	5	9	16	1
10	25	12	9	27	50	10	9	38	10	21	29	11	3	26	11	15	33	11	27	51	0	10	22
17	2	1	0	23	8	1	6	7	1	19	20	2	2	46	2	16	24	3	0	14	3	14	16
24	9	1	3	28	27	4	12	46	4	27	12	5	11	40	5	26	5	6	10	24	6	24	29
May 1	17	1	7	8	17	7	21	44	8	4	50	8	17	34	8	29	58	9	12	6	9	24	3
8	23	1	10	5	53	10	17	42	10	29	34	11	11	36	11	23	50	0	6	20	0	19	8
15	30	1	1	2	13	1	15	36	1	29	14	2	13	4	2	27	3	3	11	7	3	25	14
22	8	2	4	9	22	4	23	30	5	7	36	5	21	41	6	5	40	6	19	33	7	3	16
29	15	2	7	16	45	7	29	58	8	12	54	8	25	32	9	7	53	9	20	0	10	1	56
June 5	22	2	10	13	46	10	25	35	11	7	28	11	19	32	0	1	50	0	14	28	0	27	27
12	29	2	1	10	49	1	24	32	2	8	34	2	22	50	3	7	14	3	21	40	4	6	2
19	6	2	4	20	19	5	4	27	5	18	26	6	2	16	6	15	55	6	29	25	7	12	44
26	14	2	7	25	50	8	8	44	8	21	24	9	3	51	9	16	4	9	28	5	10	9	59
July 3	20	2	10	21	47	11	3	35	11	15	28	11	27	31	0	9	50	0	22	29	1	5	32
10	27	2	1	19	0	2	2	56	2	17	14	3	1	51	3	16	37	4	1	27	4	16	11
17	5	3	5	0	44	5	15	3	5	29	5	6	12	51	6	26	20	7	9	34	7	22	34
24	12	3	8	5	21	8	17	56	9	0	19	9	12	32	9	24	35	10	6	30	10	18	20
31	19	3	11	0	7	11	11	55	11	23	48	0	5	50	0	18	8	1	0	45	1	13	46
Aug. 7	26	3	1	27	14	2	11	9	2	25	31	3	10	16	3	25	15	4	10	22	4	25	25
14	3	4	5	10	18	5	24	53	6	9	7	6	22	58	7	6	27	7	19	35	8	2	25
21	11	4	8	14	58	8	27	19	9	9	28	9	21	29	10	3	23	10	15	13	10	27	1
28	17	4	11	8	49	11	20	39	0	2	35	0	14	41	0	27	0	1	9	36	1	22	33
Sept. 4	24	4	2	5	54	2	19	41	3	3	55	3	18	33	4	3	30	4	18	40	5	3	51
11	2	5	5	18	57	6	3	46	6	18	14	7	2	18	7	15	52	7	29	3	8	11	50
18	9	5	8	24	18	9	6	30	9	18	31	10	0	25	10	12	13	10	24	1	11	5	50
25	16	5	11	17	42	11	29	40	0	11	45	0	24	0	1	6	26	1	19	7	2	2	5
Oct. 2	23	5	2	15	21	2	28	59	3	12	59	3	27	21	4	12	2	4	26	58	5	12	2
9	30	5	5	27	5	6	11	58	6	26	33	7	10	44	7	24	28	8	7	44	8	20	35
16	8	6	9	3	3	9	15	14	9	27	12	10	9	2	10	20	49	11	2	37	11	14	29
23	14	6	11	26	29	0	8	37	0	20	57	1	3	27	1	16	10	1	29	51	2	12	12
30	21	6	2	25	33	3	9	9	3	22	59	4	7	5	4	21	26	5	5	59	5	20	41
Nov. 6	29	6	6	5	26	6	20	6	7	4	34	7	18	43	8	2	28	8	15	47	8	28	41
13	6	7	9	11	12	9	23	24	10	5	23	10	17	12	10	29	0	11	10	49	11	22	45
20	13	7	0	4	52	0	17	12	0	29	47	1	12	38	1	25	42	2	8	59	2	22	28
27	20	7	3	6	5	3	19	51	4	3	43	4	17	43	5	1	50	5	16	2	6	0	19
Dec. 4	27	7	6	14	37	6	28	51	7	12	58	7	26	50	8	10	24	8	23	37	9	6	29
11	4	8	9	18	59	10	1	12	10	13	11	10	25	2	11	6	50	11	18	40	0	0	38
18	11	8	0	12	48	0	25	16	1	8	2	1	21	8	2	4	34	2	18	16	3	2	11
25	18	8	3	16	14	4	0	23	4	14	33	4	28	42	5	12	48	5	26	51	6	10	51
Jan. 1	25	8	6	24	45		—			—			—			—			—			—	

Rahu (रा ८ ग्रा) on 1st of each month	Jan. :	5 9 17	5 7 38	5 6 6	5 4 28
	May :	5 2 52	5 1 14	4 29 39	4 28 0
	Sept. :	4 26 22	4 24 46	4 23 8	4 21 33

1905 A.D. 1311-12 B.S. *Ayanamsa* 22° 31′ 49″ CONDENSED

Date	Beng. Date		*Nirayaṇa* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ শ			बृ ♃ বৃ			म ♂ ম			र ☉ র			शु ♀ শু			बु ☿ বু			♀ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	9	26	5	11	28	11	6	1	7	8	17	54	0	0	18	8	15	54	8	12	9
8	24	9	9	26	49	11	28	40	6	4	46	8	25	2	10	8	30	8	9	0	8	8	20
15	2	10	9	27	36	11	29	17	6	8	19	9	2	10	10	16	36	8	9	25	8	11	18
22	9	10	9	28	24	0	0	4	6	11	44	9	9	18	10	24	34	8	14	51	8	18	3
29	16	10	9	29	13	0	0	57	6	15	1	9	16	24	11	2	21	8	22	48	8	26	40
Feb. 5	23	10	10	0	3	0	1	58	6	18	7	9	23	31	11	9	56	9	2	7	9	6	25
12	30	10	10	0	54	0	3	6	6	21	2	10	0	36	11	17	15	9	12	20	9	16	56
19	7	11	10	1	45	0	4	19	6	23	43	10	7	40	11	24	15	9	23	17	9	28	12
26	14	11	10	2	35	0	5	38	6	26	9	10	14	42	0	0	49	10	5	0	10	10	16
Mar. 5	21	11	10	3	24	0	7	1	6	28	17	10	21	44	0	6	52	10	17	32	10	23	10
12	28	11	10	4	13	0	8	27	7	0	2	10	28	43	0	12	15	11	0	55	11	6	51
19	6	12	10	5	0	0	9	58	7	1	23	11	5	41	0	16	44	11	14	48	11	20	39
26	13	12	10	5	45	0	11	31	7	2	15	11	12	38	0	20	4	11	27	59	0	2	55
Apr. 2	20	12	10	6	27	0	13	6	7	2	34	11	19	33	0	21	55	0	8	22	0	11	27
9	27	12	10	7	7	0	14	43	7	2	18	11	26	26	0	21	57	0	14	3	0	14	52
16	3	1	10	7	45	0	16	21	7	1	24	0	3	17	0	20	0	0	14	28	0	13	14
23	10	1	10	8	18	0	18	1	6	29	54	0	10	7	0	16	21	0	10	46	0	8	45
30	17	1	10	8	49	0	19	41	6	27	53	0	16	55	0	12	0	0	6	24	0	5	13
May 7	24	1	10	9	15	0	21	21	6	25	30	0	23	42	0	8	15	0	4	41	0	5	5
14	31	1	10	9	38	0	23	1	6	22	57	1	0	28	0	6	6	0	6	41	0	8	36
21	7	2	10	9	56	0	24	40	6	20	32	1	7	12	0	5	53	0	12	0	0	15	7
28	14	2	10	10	9	0	26	18	6	18	28	1	13	56	0	7	29	0	19	58	0	24	6
June 4	21	2	10	10	18	0	27	55	6	16	55	1	20	38	0	10	33	1	0	13	1	5	15
11	28	2	10	10	22	0	29	29	6	16	1	1	27	20	0	14	45	1	12	31	1	18	28
18	4	3	10	10	21	1	1	2	6	15	48	2	4	1	0	19	49	1	26	47	2	3	17
25	11	3	10	10	15	1	2	31	6	16	14	2	10	41	0	25	33	2	12	2	2	18	31
July 2	18	3	10	10	5	1	3	58	6	17	16	2	17	22	1	1	47	2	26	53	3	2	51
9	25	3	10	9	50	1	5	21	6	18	52	2	24	3	1	8	26	3	10	23	3	15	41
16	32	3	10	9	31	1	6	40	6	20	57	3	0	43	1	15	23	3	22	17	3	26	55
23	7	4	10	9	8	1	7	54	6	23	27	3	7	24	1	22	36	4	2	36	4	6	30
30	14	4	10	8	42	1	9	3	6	26	19	3	14	5	2	0	2	4	11	10	4	14	14
Aug. 6	21	4	10	8	14	1	10	6	6	29	31	3	20	47	2	7	38	4	17	37	4	19	33
13	28	4	10	7	43	1	11	3	7	3	1	3	27	30	2	15	23	4	21	10	4	21	32
30	4	5	10	7	12	1	11	53	7	6	44	4	4	14	2	23	17	4	20	43	4	19	8
27	11	5	10	6	40	1	12	35	7	10	41	4	10	59	3	1	17	4	15	56	4	13	9
Sept. 3	18	5	10	6	9	1	13	10	6	14	50	4	17	46	3	9	24	4	9	52	4	8	22
10	25	5	10	5	39	1	13	35	7	19	10	4	24	33	3	17	36	4	8	19	4	9	50
17	1	6	10	5	11	1	13	51	7	23	38	5	1	23	3	25	53	4	13	45	4	17	49
24	8	6	10	4	46	1	13	58	7	28	15	5	8	13	4	4	15	4	24	14	4	29	27
Oct. 1	15	6	10	4	24	1	13	55	8	2	58	5	15	6	4	12	42	5	6	37	5	12	1
8	22	6	10	4	7	1	13	42	8	7	49	5	22	0	4	21	12	5	19	7	5	24	21
15	29	6	10	3	53	1	13	19	8	12	45	5	29	56	4	29	46	6	1	8	6	6	7
22	5	7	10	3	44	1	12	48	8	17	45	6	5	53	5	8	22	6	12	37	6	17	23
29	12	7	10	3	40	1	12	8	8	22	51	6	12	52	5	17	1	6	23	37	6	28	13
Nov. 5	19	7	10	3	42	1	11	21	8	28	0	6	19	53	5	25	42	7	4	14	7	8	40
12	26	7	10	3	48	1	10	29	9	3	13	6	26	55	6	4	25	7	14	27	7	18	41
19	3	8	10	3	59	1	9	33	9	8	28	7	3	58	6	13	10	7	24	7	7	27	58
26	10	8	10	4	15	1	8	36	9	13	45	7	11	3	6	21	55	8	2	36	8	5	29
Dec. 3	17	8	10	4	37	1	7	39	9	19	4	7	18	9	7	0	42	8	8	7	8	8	45
10	24	8	10	5	2	1	6	46	9	24	24	7	25	15	7	9	29	8	7	8	8	4	2
17	2	9	10	5	32	1	5	57	9	29	45	8	2	22	7	18	17	7	28	39	7	25	7
24	9	9	10	6	5	1	5	15	10	5	7	8	9	30	7	27	5	7	22	39	7	22	36
31	16	9	10	6	42	1	4	41	10	10	28	8	16	38	8	5	53	7	24	26	7	26	50
Jan. 7	23	9	10	7	21	1	4	15	10	15	49	8	23	45	8	14	40	8	0	56	–		

Stationary :—Saturn—June 14 R, October 31 D ; Jupiter—September 26R ; Mars—Apr. 4R, June 18D ; Venus—Apr. 7R, May 19D ; Mercury—Jan. 12D April 14 R, May 8 D, August 17 R, Sept. 9 D, Dec. 7 R, Dec. 27 D.

Date	*Tithi & Month*		*Nirayana* Long of Moon (च ☽ ठ) at 5-30 P.M. I.S.T. Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 1	26	8	6 24 45	7 8 32	7 22 11	8 5 38	8 18 50	9 1 47	9 14 27
8	3	9	9 26 51	10 9 1	10 20 59	11 2 49	11 14 36	11 26 26	0 8 23
15	9	9	0 20 33	1 3 1	1 15 50	1 29 3	2 12 40	2 26 39	3 10 57
22	16	9	3 25 27	4 10 3	4 24 40	5 9 11	5 23 33	6 7 43	6 21 39
29	24	9	7 5 22	7 18 51	8 2 6	8 15 8	8 27 56	9 10 32	9 22 56
Feb. 5	1	10	10 5 8	10 17 10	10 29 4	11 10 58	11 22 41	0 4 30	0 16 26
12	8	10	0 28 34	1 10 58	1 23 43	2 6 52	2 20 28	3 4 30	3 18 56
19	15	10	4 3 42	4 18 40	5 3 42	5 18 39	6 3 24	6 17 52	7 1 59
26	22	10	7 15 44	7 29 7	8 12 10	8 24 55	9 7 26	9 19 44	10 1 52
Mar. 5	29	10	10 13 52	10 25 45	11 7 35	11 19 24	0 1 12	0 13 4	0 25 2
12	6	11	1 7 10	1 19 32	2 2 12	2 15 14	2 28 40	3 12 33	3 26 53
19	13	11	4 11 37	4 26 40	5 11 53	5 27 7	6 12 12	6 26 59	7 11 22
26	21	11	7 25 18	8 8 46	8 21 48	9 4 28	9 16 50	9 28 58	10 10 55
Apr. 2	28	11	10 22 47	11 4 35	11 16 23	11 28 12	0 10 5	0 22 3	1 4 8
9	4	12	1 16 23	1 28 48	2 11 29	2 24 27	3 7 45	3 21 27	4 5 33
16	12	12	4 20 4	5 4 55	5 20 2	6 5 16	6 20 25	7 5 21	7 19 54
23	19	12	8 4 0	8 17 36	9 0 43	9 13 25	9 25 46	10 7 51	10 19 45
30	26	12	11 1 34	11 13 21	11 25 9	0 7 2	0 19 2	1 1 10	1 13 27
May 7	3	1	1 25 54	2 8 32	2 21 21	3 4 24	3 17 43	4 1 20	4 15 12
14	10	1	4 29 30	5 14 5	5 28 52	6 13 49	6 28 46	7 13 34	7 28 10
21	18	1	8 12 10	8 25 49	9 9 0	9 21 45	10 4 8	10 16 15	10 28 10
28	25	1	11 9 59	11 21 48	0 3 39	0 15 38	0 27 46	1 10 6	1 22 38
June 4	1	2	2 5 21	2 18 17	3 1 24	3 14 43	3 28 12	4 11 54	4 25 48
11	9	2	5 9 54	5 24 13	6 8 41	6 23 14	7 7 47	7 22 13	8 6 26
18	16	2	8 20 20	9 3 51	9 16 58	9 29 43	10 12 7	10 24 16	11 6 13
25	23	2	11 18 4	11 29 54	0 11 49	0 23 52	1 6 8	1 18 37	2 1 23
July 2	30	2	2 14 54	2 27 41	3 11 10	3 24 51	4 8 42	4 22 40	5 6 44
9	7	3	5 20 52	6 5 4	6 19 17	7 3 29	7 17 36	8 1 35	8 15 22
16	15	3	8 28 54	9 12 8	9 25 4	10 7 41	10 20 2	11 2 9	11 14 7
23	22	3	11 25 59	0 7 50	0 19 46	1 1 51	1 14 10	1 26 45	2 9 39
30	28	3	2 22 53	3 6 27	3 20 19	4 4 25	4 18 42	5 3 4	5 17 28
Aug. 6	6	4	6 1 50	6 16 6	7 0 14	7 14 12	7 27 59	8 11 33	8 24 54
13	13	4	9 8 1	9 20 53	10 3 32	10 15 57	10 28 10	11 10 13	11 22 9
20	20	4	0 4 0	0 15 52	0 27 47	1 9 51	1 22 8	2 4 42	2 17 38
27	27	4	3 0 56	3 14 40	3 28 46	4 13 12	4 27 53	5 12 42	5 27 32
Sept. 3	4	5	6 12 14	6 26 44	7 10 58	7 24 53	8 8 29	8 21 46	9 4 47
10	12	5	9 17 32	10 0 5	10 12 26	10 24 37	11 6 41	11 18 38	0 0 31
17	19	5	0 12 22	0 24 14	1 6 9	1 18 11	2 0 25	2 12 55	2 25 45
24	25	5	3 9 0	3 22 40	4 6 49	4 21 22	5 6 17	5 21 25	6 6 37
Oct. 1	3	6	6 21 41	7 6 31	7 20 58	8 4 59	8 18 35	9 1 46	9 14 36
8	10	6	9 27 8	10 9 26	10 21 34	11 3 35	11 15 30	11 27 23	0 9 15
15	17	6	0 21 7	1 3 0	1 14 58	1 27 3	2 9 17	2 21 44	3 4 29
22	24	6	3 17 35	4 1 6	4 15 5	4 29 31	5 14 23	5 29 34	6 14 53
29	1	7	7 0 11	7 15 15	7 29 56	8 14 9	8 27 53	9 11 7	9 23 56
Nov. 5	9	7	10 6 24	10 18 36	11 0 37	11 12 32	11 24 23	0 6 13	0 18 6
12	15	7	1 0 2	1 12 2	1 24 8	2 6 20	2 18 41	3 1 13	3 13 59
19	22	7	3 27 2	4 10 25	4 24 12	5 8 23	5 22 59	6 7 55	6 23 3
26	30	7	7 8 14	7 23 18	8 8 3	8 22 23	9 6 15	9 19 36	10 2 31
Dec. 3	7	8	10 15 2	10 27 15	11 9 16	11 21 9	0 2 59	0 14 50	0 26 45
10	14	8	1 8 47	1 20 56	2 3 13	2 15 40	2 28 16	3 11 3	3 24 1
17	21	8	4 7 12	4 20 38	5 4 20	5 18 21	6 2 38	6 17 11	7 1 55
24	28	8	7 16 43	8 1 27	8 15 59	9 0 12	9 14 2	9 27 26	10 10 25
31	5	9	10 23 1	11 5 18	11 17 22	11 29 17	0 11 8	0 23 0	1 4 58
Jan. 7	12	9	1 17 4	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month				
Jan. :	4 19 54	4 18 16	4 16 47	4 15 8
May. :	4 13 33	4 11 54	4 10 19	4 8 40
Sept. :	4 7 2	4 5 27	4 3 48	4 2 18

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T on Sundays						♀ Wednes
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 7	23 9	10 7 21	1 4 15	10 15 49	8 23 45	8 14 40	8 0 56	8 4 29
14	1 10	10 8 4	1 4 0	10 21 10	9 0 53	8 23 28	8 9 35	8 13 39
21	8 10	10 8 50	1 3 55	10 26 29	9 8 1	9 2 16	8 19 18	8 23 40
28	15 10	10 9 37	1 3 59	11 1 48	9 15 8	9 11 4	8 29 41	9 4 19
Feb. 4	22 10	10 10 26	1 4 14	11 7 5	9 22 14	9 19 51	9 10 39	9 15 31
11	29 10	10 11 16	1 4 39	11 12 21	9 29 19	9 28 38	9 22 13	9 27 23
18	6 11	10 12 6	1 5 12	11 17 35	10 6 23	10 7 24	10 4 29	10 9 57
25	13 11	10 12 58	1 5 54	11 22 47	10 13 26	10 16 10	10 17 26	10 23 9
Mar. 4	20 11	10 13 49	1 6 44	11 27 57	10 20 28	10 24 54	11 0 47	11 6 24
11	27 11	10 14 39	1 7 41	0 3 5	10 27 28	11 3 38	11 13 22	11 17 58
18	4 12	10 15 29	1 8 44	0 8 11	11 4 26	11 12 21	11 22 49	11 25 15
25	11 12	10 16 18	1 9 53	0 13 15	11 11 23	11 21 3	11 26 43	11 26 29
Apr. 1	18 12	10 17 5	1 11 7	0 18 17	11 18 18	11 29 44	11 24 38	11 22 29
8	25 12	10 17 50	1 12 26	0 23 16	11 25 11	0 8 23	11 19 20	11 17 16
15	2 1	10 18 33	1 13 49	0 8 13	0 2 4	0 17 2	11 15 29	11 15 0
22	9 1	10 19 13	1 15 15	1 3 8	0 8 53	0 25 38	11 15 34	11 16 49
29	16 1	10 19 51	1 16 44	1 8 1	0 15 42	1 4 14	11 19 25	11 22 0
May 6	23 1	10 20 25	1 18 16	1 12 51	0 22 29	1 12 48	11 26 9	11 29 44
13	30 1	10 20 56	1 19 49	1 17 40	0 29 15	1 21 21	0 5 6	0 9 30
20	6 2	10 21 22	1 21 24	1 22 26	1 5 59	1 29 52	0 15 56	0 21 7
27	13 2	10 21 45	1 23 0	1 27 11	1 12 43	2 8 21	0 28 33	1 4 30
June 3	20 2	10 22 5	1 24 37	2 1 54	1 19 26	2 16 49	1 12 50	1 19 20
10	27 2	10 22 16	1 26 14	2 6 35	1 26 7	2 25 15	1 28 8	2 4 40
17	3 3	10 22 25	1 27 51	2 11 14	2 2 49	3 3 39	2 13 6	2 19 6
24	10 3	10 22 29	1 29 28	2 15 52	2 9 29	3 12 0	2 26 38	3 1 54
July 1	17 3	10 22 28	2 1 5	2 20 29	2 16 10	3 20 19	3 8 24	3 12 53
8	24 3	10 22 22	2 2 38	2 25 4	2 22 50	3 28 36	3 18 18	3 21 56
15	31 3	10 22 12	2 4 10	2 29 37	2 29 31	4 6 49	3 26 9	3 28 47
22	6 4	10 21 57	2 5 41	3 4 10	3 6 12	4 14 58	4 1 29	4 2 49
29	13 4	10 21 37	2 7 9	3 8 41	3 12 58	4 23 4	4 3 31	4 3 9
Aug. 5	20 4	10 21 15	2 8 34	3 13 12	3 19 35	5 1 4	4 1 29	3 29 29
12	27 4	10 20 48	2 9 56	3 17 41	3 26 18	5 8 59	3 26 17	3 23 59
19	3 5	10 20 20	2 11 14	3 22 10	4 3 1	5 16 48	3 21 48	3 21 17
26	10 5	10 19 49	2 12 28	3 26 38	4 9 46	5 24 29	3 22 20	3 24 30
Sept. 2	17 5	10 19 17	2 13 36	4 1 5	4 16 32	6 2 2	3 29 2	4 3 27
9	24 5	10 18 45	2 14 39	4 5 32	4 23 20	6 9 23	4 10 15	4 15 45
16	31 5	10 18 14	2 15 35	4 9 58	5 0 9	6 16 31	4 23 17	4 28 55
23	7 6	10 17 43	2 16 25	4 14 24	5 6 59	6 23 22	5 6 17	5 11 41
30	14 6	10 17 15	2 17 8	4 18 49	5 13 52	6 29 51	5 18 40	5 23 45
Oct. 7	21 6	10 16 50	2 17 42	4 23 13	5 20 45	7 5 53	6 0 19	6 5 8
14	28 6	10 16 28	2 18 7	4 27 37	5 27 41	7 11 18	6 11 22	6 15 55
21	4 7	10 16 11	2 18 24	5 2 1	6 4 38	7 15 56	6 21 50	6 26 9
28	11 7	10 15 57	2 18 31	5 6 24	6 11 37	7 19 30	7 1 44	7 5 44
Nov. 4	18 7	10 15 49	2 18 28	5 10 47	6 18 37	7 21 41	7 10 50	7 14 20
11	25 7	10 15 45	2 18 15	5 15 9	6 25 39	7 22 7	7 18 25	7 20 51
18	2 8	10 15 47	2 17 53	5 19 31	7 2 42	7 20 37	7 22 43	7 22 45
25	9 8	10 15 54	2 17 22	5 23 52	7 9 46	7 17 21	7 20 24	7 16 57
Dec. 2	16 8	10 16 6	2 16 42	5 28 12	7 16 52	7 13 10	7 11 34	7 8 24
9	23 8	10 16 23	2 15 56	6 2 32	7 23 58	7 9 26	7 6 41	7 7 14
16	1 9	10 16 45	2 15 4	6 6 50	8 1 5	7 7 15	7 9 48	7 12 41
23	8 9	10 17 11	2 14 9	6 11 8	8 8 13	7 7 3	7 17 18	7 21 8
30	15 9	10 17 42	2 13 12	6 15 24	8 15 21	7 8 44	7 26 35	8 0 49
Jan. 6	22 9	10 18 16	2 12 16	6 19 39	8 22 29	7 11 58	8 6 40	—

Stationary :—Saturn—June 27 R, November 13 D. ; Jupiter—January 22D, Oct. 30 R ; Mars— : Venus—November 10R. Dec. 21D ; Mercury—Mar. 27R, April 19 D, July 30 R, August 23 D, November 21 R, December 10 D.

Date	*Tithi* & *Month*	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		Nirayana Long. of Moon (च ☽ ƃ) at 5-30 P.M. I.S.T.						
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 7	12 9	1 17 4	1 29 21	2 11 50	2 24 33	3 7 29	3 20 38	4 3 59
14	19 9	4 17 31	5 1 41	5 15 7	5 29 8	6 13 18	6 27 34	7 11 53
21	27 9	7 26 11	8 10 25	8 24 30	9 8 21	9 21 55	10 5 10	10 18 5
28	4 10	11 0 42	11 13 1	11 25 8	0 7 5	0 18 58	1 0 51	1 12 49
Feb. 4	10 10	1 24 56	2 7 16	2 19 53	3 2 47	3 16 1	3 29 32	4 13 20
11	17 10	4 27 21	5 11 32	5 25 48	6 10 6	6 24 22	7 8 33	7 22 38
18	25 10	8 6 34	8 20 21	9 3 56	9 17 19	10 0 29	10 13 26	10 26 8
25	2 11	11 8 37	11 20 53	0 2 59	0 14 56	0 26 49	1 8 41	1 20 38
Mar. 4	9 11	2 2 43	2 15 1	2 27 38	3 10 35	3 23 57	4 7 43	4 21 51
11	16 11	5 6 19	5 20 59	6 5 44	6 20 28	7 5 3	7 19 24	8 3 28
18	23 11	8 17 15	9 0 45	9 13 59	9 26 59	10 9 46	10 22 22	11 4 48
25	1 12	11 17 4	11 29 13	0 11 13	0 23 9	1 5 0	1 16 52	1 28 47
Apr. 1	7 12	2 10 49	2 23 4	3 5 36	3 18 30	4 1 50	4 15 38	4 29 54
8	14 12	5 14 35	5 29 35	6 14 44	6 29 52	7 14 49	7 29 27	8 13 43
15	22 12	8 27 33	9 10 59	9 24 4	10 6 51	10 19 53	11 1 43	11 13 55
22	29 12	11 26 0	0 7 59	0 19 55	1 1 47	1 13 39	1 25 31	2 7 26
29	5 1	2 19 29	3 1 42	3 14 11	3 27 0	4 10 13	4 23 56	5 8 8
May 6	13 1	5 22 48	6 7 51	6 23 8	7 8 28	7 23 40	8 8 34	8 23 2
13	20 1	9 7 2	9 20 33	10 3 39	10 16 23	10 28 50	11 11 3	11 23 7
20	27 1	0 5 4	0 16 58	0 28 50	1 10 42	1 22 25	2 4 31	2 16 31
27	4 2	2 28 39	3 10 57	3 23 28	4 6 17	4 19 27	5 3 2	5 17 5
June 3	11 2	6 1 34	6 16 26	7 1 35	7 16 50	8 2 2	8 16 59	9 1 34
10	19 2	9 15 41	9 29 20	10 12 32	10 15 20	11 7 48	11 20 0	0 2 2
17	26 2	0 13 57	0 25 48	1 7 40	1 19 33	2 1 31	2 13 34	2 25 45
24	2 3	3 8 4	3 20 33	4 3 16	4 16 13	4 29 28	5 13 2	5 26 57
July 1	10 3	6 11 14	6 25 49	7 10 38	7 25 34	8 10 30	8 25 15	9 9 44
8	17 3	9 23 50	10 7 32	10 20 48	11 3 40	11 16 12	11 28 27	0 10 30
15	24 3	0 22 25	1 4 17	1 16 10	1 28 7	2 10 10	2 22 23	3 4 46
22	1 4	3 17 22	4 0 10	4 13 11	4 26 27	5 9 56	5 23 39	6 7 36
29	8 4	6 21 45	7 6 5	7 20 32	8 5 3	8 19 33	9 3 55	9 18 5
Aug. 5	16 4	10 1 59	10 15 33	10 28 46	11 11 39	11 24 12	0 6 29	0 18 34
12	23 4	1 0 30	1 12 23	1 24 17	2 6 16	2 18 24	3 0 45	3 13 21
19	29 4	3 26 14	4 9 23	4 22 49	5 6 30	5 20 23	6 4 25	6 18 34
26	7 5	7 2 46	7 16 59	8 1 11	8 15 19	8 29 22	9 13 16	9 27 1
Sept. 2	14 5	10 10 33	10 23 51	11 6 53	11 19 39	0 2 9	0 14 24	0 26 28
9	21 5	1 8 24	1 20 16	2 2 9	2 14 8	2 26 17	3 8 42	3 21 26
16	28 5	4 4 31	4 17 59	5 1 48	5 15 56	6 0 18	6 14 46	6 29 17
23	5 6	7 13 43	7 28 0	8 12 7	8 26 2	9 9 45	9 23 16	10 6 40
30	13 6	10 19 44	11 2 41	11 15 26	11 28 0	0 10 21	0 22 32	1 4 32
Oct. 7	20 6	1 16 26	1 28 16	2 10 7	2 22 3	3 4 9	3 16 32	3 29 16
14	26 6	4 12 25	4 26 1	5 10 5	5 24 33	6 9 19	6 24 14	7 9 10
21	4 7	7 23 58	8 8 31	8 22 45	9 6 39	9 20 14	10 3 32	10 16 34
28	11 7	10 29 23	11 12 1	11 24 29	0 6 48	0 18 58	1 1 1	1 12 57
Nov. 4	18 7	1 24 48	2 6 41	2 18 26	3 0 20	3 12 24	3 24 43	4 7 22
11	25 7	4 20 26	5 3 59	5 18 3	6 2 35	6 17 31	7 2 42	7 17 58
18	2 8	8 3 6	8 17 59	9 2 29	9 16 34	10 0 14	10 13 30	10 26 26
25	10 8	11 9 5	11 21 31	0 3 46	0 15 53	0 27 53	1 9 48	1 21 40
Dec. 2	17 8	2 3 30	2 15 20	2 27 12	3 9 9	3 21 15	4 3 33	4 16 10
9	23 8	4 39 8	5 12 32	5 26 25	6 10 47	6 25 34	7 10 41	7 25 58
16	1 9	8 11 15	8 26 20	9 11 5	9 25 25	10 9 17	10 22 42	11 5 42
23	8 9	11 18 22	0 0 44	0 12 53	0 24 52	1 6 46	1 18 37	2 0 27
30	15 9	2 12 19	2 24 13	3 6 12	3 18 18	4 0 34	4 13 1	4 25 43
Jan. 6	22 9	5 8 43	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month				
Jan. :	4 0 33	3 28 55	3 27 26	3 25 47
May :	3 24 12	3 22 34	3 20 58	3 19 20
Sept. :	3 17 41	3 16 6	3 14 27	3 12 52

1907 A.D. 1313-14 B.S. *Ayanamsa* 22° 35′ 20″ CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ শ			बृ ♃ বৃ			म ♂ ম			र ☉ র			शु ♀ শু			बु ☿ বু			♀ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 6	22	9	10	18	16	2	12	16	6	19	39	8	22	29	7	11	58	8	6	40	8	11	8
13	29	9	10	18	51	2	11	22	6	23	53	8	29	37	7	16	24	8	17	13	8	21	52
20	6	10	10	19	35	2	10	34	6	28	4	9	6	45	7	21	45	8	28	11	9	3	1
27	13	10	10	20	19	2	9	51	7	2	14	9	13	52	7	27	47	9	9	37	9	14	40
Feb. 3	20	10	10	21	5	2	9	17	7	6	21	9	20	5	8	4	20	9	21	34	9	26	51
10	27	10	10	21	53	2	8	51	7	10	25	9	28	4	8	11	17	10	4	4	10	9	33
17	5	11	10	22	42	2	8	34	7	14	26	10	5	8	8	18	33	10	16	51	10	22	10
24	12	11	10	23	33	2	8	27	7	18	24	10	12	12	8	26	2	10	28	45	11	2	58
Mar. 3	19	11	10	24	24	2	8	30	7	22	17	10	19	13	9	3	43	11	7	10	11	8	55
10	26	11	10	25	16	2	8	43	7	26	5	10	26	13	9	11	32	11	9	11	11	7	54
17	3	12	10	26	6	2	9	3	7	29	46	11	3	11	9	19	28	11	4	46	11	2	1
24	10	12	10	26	58	2	9	34	8	3	22	11	10	8	9	27	30	10	28	44	10	27	3
31	17	12	10	27	48	2	10	13	8	6	49	11	17	4	10	5	37	10	26	7	10	26	25
Apr. 7	24	12	10	28	37	2	10	59	8	10	8	11	23	57	10	13	48	10	27	59	10	29	55
14	1	1	10	29	25	2	11	52	8	13	15	0	0	49	10	22	2	11	3	19	11	6	23
21	8	1	11	0	10	2	12	52	8	16	9	0	7	40	11	0	18	11	11	5	11	15	0
28	15	1	11	0	54	2	13	57	8	18	48	0	14	29	11	8	36	11	20	42	11	25	19
May 5	22	1	11	1	35	2	15	7	8	21	8	0	21	16	11	16	56	0	1	55	0	7	11
12	29	1	11	2	12	2	16	23	8	23	7	0	28	2	11	25	18	0	14	40	0	20	37
19	5	2	11	2	47	2	17	41	8	24	41	1	4	47	0	3	41	0	28	55	1	5	23
26	12	2	11	3	18	2	19	4	8	25	45	1	11	31	0	12	5	1	14	10	1	20	42
June 2	19	2	11	3	45	2	20	29	8	26	17	1	18	13	0	20	30	1	29	8	2	5	9
9	26	2	11	4	8	2	21	57	8	26	13	1	24	55	0	28	56	2	12	37	2	17	47
16	1	3	11	4	26	2	23	27	8	25	32	2	1	37	1	7	23	2	24	5	2	28	20
23	8	3	11	4	40	2	24	58	8	24	17	2	8	18	1	15	51	3	3	22	3	6	37
30	15	3	11	4	49	2	26	31	8	22	34	2	14	58	1	24	20	3	10	12	3	12	16
July 7	22	3	11	4	53	2	28	4	8	20	34	2	21	38	2	2	51	3	14	4	3	14	39
14	29	3	11	4	53	2	29	38	8	18	32	2	28	19	2	11	22	3	14	19	3	13	16
21	5	4	11	4	47	3	1	12	8	16	43	3	5	0	2	19	55	3	10	59	3	8	54
28	12	4	11	4	36	3	2	46	8	15	21	3	11	41	2	28	29	3	6	12	3	4	42
Aug. 4	19	4	11	4	21	3	4	19	8	14	34	3	18	23	3	7	5	3	3	50	3	4	18
11	26	4	11	4	2	3	5	50	8	14	27	3	25	5	3	15	42	3	6	28	3	9	15
18	1	5	11	3	39	3	7	21	8	15	2	4	1	49	3	24	20	3	14	22	3	19	5
25	8	5	11	3	12	3	8	49	8	16	14	4	8	33	4	2	59	3	26	14	4	1	59
Sept. 1	15	5	11	2	43	3	10	14	8	18	2	4	15	19	4	11	39	4	9	50	4	15	42
8	22	5	11	2	12	3	11	37	8	20	20	4	22	6	4	20	21	4	23	20	4	28	54
15	29	5	11	1	40	3	12	57	8	23	6	4	28	55	4	29	3	5	6	4	5	11	15
22	5	6	11	1	8	3	14	12	8	26	14	5	5	45	5	7	46	5	17	56	5	22	45
29	12	6	11	0	36	3	15	23	8	29	41	5	12	37	5	16	29	5	28	59	6	3	31
Oct. 6	19	6	11	0	5	3	16	29	9	3	25	5	19	31	5	25	13	6	9	19	6	13	31
13	26	6	10	29	37	3	17	30	9	7	23	5	26	26	6	3	58	6	18	53	6	22	41
20	3	7	10	29	11	3	18	24	9	11	32	6	3	23	6	12	42	6	27	23	7	0	32
27	10	7	10	28	49	3	19	11	9	15	51	6	10	21	6	21	27	7	4	3	7	5	57
Nov. 3	17	7	10	28	32	3	19	50	9	20	18	6	17	21	7	0	12	7	7	3	7	6	28
10	24	7	10	28	19	3	20	22	9	24	52	6	24	23	7	8	57	7	3	27	6	29	47
17	1	8	10	28	10	3	20	45	9	29	31	7	1	25	7	17	42	6	24	38	6	21	58
24	8	8	10	28	7	3	20	58	10	4	14	7	8	30	7	26	26	6	21	1	6	22	9
Dec. 1	15	8	10	28	9	3	21	3	10	9	1	7	15	35	8	5	11	6	25	24	6	28	42
8	22	8	10	28	17	3	20	57	10	13	51	7	22	41	8	13	56	7	3	48	7	7	56
15	29	8	10	28	29	3	20	42	10	18	43	7	29	48	8	22	40	7	13	42	7	18	8
22	6	9	10	28	47	3	20	18	10	23	37	8	6	56	9	1	23	7	24	8	7	28	43
29	13	9	10	29	10	3	19	45	10	28	31	8	14	4	9	10	6	8	4	52	8	9	31
Jan. 5	20	9	10	29	37	3	19	4	11	3	26	8	21	12	9	18	47	8	15	50		—	

Stationary :—Saturn—July 10 R, November 26 D; Jupiter—Feb. 26 D, Dec. 31 R: Mars—June 6 R, Aug. 10 D; Venus—; Mercury—March 9 R, April 1 D, July 12 R, August 5 D, November 4 R, November 24 D.

Date	Tithi & Month	Nirayana Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 6	22 9	5 8 43	5 22 3	6 5 46	6 19 52	7 4 20	7 19 7	8 4 6
13	29 9	8 19 10	9 4 9	9 18 56	10 3 22	10 17 24	11 0 59	11 14 9
20	7 10	11 26 54	0 9 20	0 21 29	1 3 28	1 15 19	1 27 8	2 8 58
27	13 10	2 20 53	3 2 55	3 15 5	3 27 26	4 9 59	4 22 45	5 5 44
Feb. 3	20 10	5 18 56	6 2 24	6 16 6	7 0 3	7 14 15	7 28 38	8 13 11
10	28 10	8 27 48	9 12 25	9 26 55	10 11 12	10 25 10	11 8 47	11 22 0
17	5 11	0 4 51	0 17 21	0 29 33	1 11 33	1 23 25	2 5 14	2 17 5
24	11 11	2 29 3	3 11 11	3 23 32	4 6 8	4 19 1	5 2 11	5 15 34
Mar. 3	18 11	5 29 11	6 12 59	6 26 54	7 10 56	7 25 2	8 9 12	8 23 23
10	26 11	9 7 34	9 21 42	10 5 45	10 19 39	11 3 20	11 16 45	11 29 52
17	3 12	0 12 40	0 25 9	1 7 22	1 19 23	2 1 15	2 13 4	2 24 55
24	10 12	3 6 53	3 19 4	4 1 32	4 14 19	4 27 29	5 10 59	5 24 49
31	17 12	6 3 53	6 23 8	7 7 27	7 21 46	8 6 1	8 20 10	9 4 12
Apr. 7	24 12	9 18 6	10 1 52	10 15 30	10 28 58	11 12 15	11 25 20	0 8 11
14	2 12	0 20 48	1 3 10	1 15 19	1 27 17	2 9 8	2 20 56	3 2 46
21	8 12	3 14 44	3 26 55	4 9 24	4 22 15	5 5 33	5 19 16	6 3 23
28	15 12	6 17 50	7 2 30	7 17 15	8 1 58	8 16 32	9 0 53	9 14 59
May 5	23 12	9 28 49	10 12 24	10 25 45	11 8 53	11 21 49	0 4 34	0 17 6
12	30 12	0 29 28	1 11 39	1 23 40	2 5 33	2 17 21	2 29 8	3 10 58
19	7 1	3 22 54	4 5 4	4 17 32	5 0 22	5 13 38	5 27 23	6 11 36
26	14 1	6 26 13	7 11 8	7 26 12	8 11 15	8 26 10	9 10 49	9 25 7
June 2	21 1	10 9 4	10 22 40	11 5 56	11 18 54	0 1 36	0 14 4	0 26 22
9	29 1	1 8 29	1 20 29	2 2 23	2 14 11	2 25 58	3 7 46	3 19 37
16	5 2	4 1 36	4 13 46	4 26 13	5 9 1	5 22 13	6 5 52	6 19 59
23	12 2	7 4 33	7 19 27	8 4 36	8 19 48	9 4 56	9 19 50	10 4 24
30	20 2	10 18 33	11 2 16	11 15 35	11 28 31	0 11 7	0 23 28	1 5 36
July 7	27 2	1 17 34	1 29 26	2 11 14	2 23 2	3 4 50	3 16 41	3 28 39
14	4 3	4 10 44	4 23 2	5 5 33	5 18 22	6 1 31	6 15 4	6 29 1
21	11 3	7 13 21	7 28 3	8 13 1	8 28 8	9 13 15	9 28 13	10 12 55
28	19 3	10 27 13	11 11 6	11 24 31	0 7 30	0 20 7	1 2 26	1 14 29
Aug. 4	26 3	1 26 24	2 8 12	2 19 59	3 1 47	3 13 40	3 25 40	4 7 49
11	2 4	4 20 7	5 2 38	5 15 22	5 28 20	6 11 33	6 25 4	7 8 53
18	9 4	7 22 59	8 7 23	8 22 1	9 6 50	9 21 41	10 6 30	10 21 6
25	17 4	11 5 24	11 19 19	0 2 49	0 15 52	0 28 31	1 10 51	1 22 54
Sept. 1	24 4	2 4 48	2 16 36	2 28 23	3 10 15	3 22 14	4 4 24	4 16 47
8	1 5	4 29 23	5 12 13	5 25 16	6 8 33	6 22 0	7 5 39	7 19 28
15	8 5	8 3 28	8 17 37	9 1 55	9 16 20	10 0 48	10 15 14	10 29 32
22	16 5	11 13 37	11 27 24	0 10 49	0 23 50	1 6 30	1 18 50	2 0 54
29	23 5	2 12 48	2 24 36	3 6 25	3 18 19	4 0 23	4 12 42	4 25 17
Oct. 6	29 5	5 8 10	5 21 21	6 4 49	6 18 30	7 2 21	7 16 18	8 0 20
13	6 6	8 14 25	8 28 30	9 12 36	9 26 42	10 10 45	10 24 45	11 8 37
20	14 6	11 22 19	0 5 47	0 18 58	1 1 50	1 14 24	1 26 41	2 8 44
27	21 6	2 20 37	3 2 25	3 14 13	3 26 8	4 8 13	4 20 35	5 3 17
Nov. 3	28 6	5 16 21	5 29 47	6 13 35	6 27 41	7 11 59	7 26 23	8 10 48
10	5 7	8 25 10	9 9 26	9 23 33	10 7 31	10 21 19	11 4 58	11 18 25
17	13 7	0 1 41	0 14 45	0 27 35	1 10 12	1 22 34	2 4 44	2 16 43
24	19 7	2 28 34	3 10 21	3 22 9	4 4 2	4 16 6	4 28 25	5 11 6
Dec. 1	26 7	5 24 10	6 7 41	6 21 37	7 5 57	7 20 35	8 5 24	8 20 16
8	3 8	9 5 4	9 19 41	10 4 3	10 18 8	11 1 54	11 15 23	11 28 34
15	11 8	0 11 31	0 24 13	1 6 43	1 19 1	2 1 10	2 13 10	2 25 3
22	18 8	3 6 52	3 18 39	4 0 28	4 12 22	4 24 25	5 6 41	5 19 16
29	24 8	6 2 14	6 15 37	6 29 28	7 13 45	7 28 27	8 13 26	8 28 36
Jan. 5	2 9	9 13 46	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month					
	Jan. :	3 11 14	3 9 36	3 8 6	3 6 27
	May. :	3 4 51	3 3 13	3 1 38	2 29 59
	Sept. :	2 28 21	2 26 45	2 25 . 7	2 23 31

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. L.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	20	9	10	29	37	3	19	4	11	3	26	8	21	12	9	18	47	8	15	50	8	20	37
12	27	9	11	0	8	3	18	16	11	8	21	8	28	20	9	27	28	8	27	6	9	2	3
19	5	10	11	0	43	3	17	24	11	13	16	9	5	28	10	6	7	9	8	46	9	13	52
26	12	10	11	1	21	3	16	29	11	18	11	9	12	35	10	14	44	9	20	48	9	26	2
Feb. 2	19	10	11	2	3	3	15	33	11	23	5	9	19	42	10	23	19	10	2	57	10	7	57
9	26	10	11	2	48	3	14	38	11	27	58	9	26	47	11	1	50	10	14	4	10	17	54
16	4	11	11	3	34	3	13	46	0	2	50	10	3	52	11	10	19	10	21	25	10	22	28
23	11	11	11	4	23	3	12	59	0	7	41	10	10	55	11	18	43	10	21	32	10	19	18
Mar. 1	18	11	11	5	13	3	12	19	0	12	31	10	17	57	11	27	3	10	15	15	10	12	16
8	25	11	11	6	4	3	11	46	0	17	19	10	24	58	0	5	17	10	9	20	10	8	14
15	2	12	11	6	56	3	11	21	0	22	7	11	1	57	0	13	26	10	8	16	10	9	17
22	9	12	11	7	48	3	11	6	0	26	52	11	8	54	0	21	26	10	11	42	10	14	10
29	16	12	11	8	41	3	11	0	1	1	36	11	15	50	0	29	19	10	18	10	10	21	35
Apr. 5	23	12	11	9	32	3	11	3	1	6	19	11	22	44	1	7	2	10	26	41	11	0	49
12	30	12	11	10	23	3	11	16	1	11	1	11	29	36	1	14	33	11	6	45	11	11	29
19	6	1	11	11	13	3	11	37	1	15	40	0	6	27	1	21	49	11	18	10	11	23	30
26	13	1	11	12	1	3	12	7	1	20	19	0	13	16	1	28	48	0	0	58	0	6	51
May 3	20	1	11	12	47	3	12	44	1	24	56	0	20	4	2	5	24	0	15	4	0	21	29
10	27	1	11	13	31	3	13	29	1	29	32	0	26	50	2	11	34	1	0	10	1	6	39
17	4	2	11	14	13	3	14	21	2	4	7	1	3	35	2	17	8	1	15	2	1	21	0
24	11	2	11	14	51	3	15	18	2	8	41	1	10	19	2	21	57	1	28	20	2	3	20
31	18	2	11	15	27	3	16	22	2	13	13	1	17	2	2	25	47	2	9	18	2	13	13
June 7	25	2	11	15	57	3	17	29	2	17	44	1	23	43	2	28	20	2	17	39	2	20	22
14	32	2	11	16	25	3	18	41	2	22	15	2	0	24	2	29	16	2	23	5	2	24	24
21	7	3	11	16	48	3	19	58	2	26	45	2	7	5	2	28	20	2	25	7	2	24	51
28	14	3	11	17	7	3	21	18	3	1	14	2	13	46	2	25	32	2	23	31	2	21	57
July 5	21	3	11	17	22	3	22	41	3	5	43	2	20	26	2	21	27	2	19	31	2	17	48
12	28	3	11	17	31	3	24	6	3	10	11	2	27	7	2	17	14	2	16	7	2	15	36
19	4	4	11	17	36	3	25	34	3	14	40	3	3	47	2	14	6	2	16	9	2	17	33
26	11	4	11	17	35	3	27	3	3	19	7	3	10	28	2	12	48	2	20	44	2	24	6
Aug. 2	18	4	11	17	30	3	28	33	3	23	34	3	17	10	2	13	22	2	29	44	3	4	44
9	25	4	11	17	20	4	0	4	3	28	1	3	23	53	2	15	36	3	12	10	3	18	8
16	32	4	11	17	5	4	1	36	4	2	29	4	0	36	2	19	10	3	26	16	4	2	19
23	7	5	11	16	46	4	3	8	4	6	56	4	7	20	2	23	46	4	10	14	4	15	58
30	14	5	11	16	22	4	4	39	4	11	23	4	14	6	2	29	11	4	23	19	4	28	35
Sept. 6	21	5	11	15	36	4	6	10	4	15	50	4	20	53	3	5	12	5	5	21	5	10	14
13	28	5	11	15	26	4	7	39	4	20	18	4	27	41	3	11	43	5	16	27	5	20	55
20	4	6	11	14	55	4	9	7	4	24	46	5	4	31	3	18	37	5	26	38	6	0	42
27	11	6	11	14	23	4	10	33	4	29	15	5	11	23	3	25	50	6	5	50	6	9	23
Oct. 4	18	6	11	13	50	4	11	56	5	3	44	5	18	16	4	3	19	6	13	41	6	16	28
11	25	6	11	13	17	4	13	16	5	8	14	5	25	11	4	11	1	6	19	21	6	20	42
18	2	7	11	12	46	4	14	33	5	12	44	6	2	7	4	18	53	6	21	0	6	19	48
25	9	7	11	12	17	4	15	46	5	17	15	6	9	6	4	26	56	6	16	13	6	12	30
Nov. 1	16	7	11	11	52	4	16	54	5	21	46	6	16	6	5	5	5	6	7	50	6	5	44
8	23	7	11	11	30	4	17	56	5	26	18	6	23	7	5	13	22	6	5	34	6	7	14
15	30	7	11	11	12	4	18	53	6	0	51	7	0	9	5	21	44	6	11	6	6	14	50
22	7	8	11	10	59	4	19	43	6	5	24	7	7	13	6	0	12	6	20	23	6	24	48
29	14	8	11	10	50	4	20	26	6	9	58	7	14	19	6	8	42	7	0	58	7	5	30
Dec. 6	21	8	11	10	47	4	21	1	6	14	34	7	21	25	6	17	17	7	11	42	7	16	21
13	28	8	11	10	50	4	21	28	6	19	9	7	28	32	6	25	53	7	22	35	8	27	17
20	5	9	11	10	58	4	21	47	6	23	46	8	5	39	7	4	32	8	3	34	8	8	19
27	12	9	11	11	11	4	21	55	6	28	23	8	12	47	7	13	12	8	14	42	8	19	33
Jan. 3	19	9	11	11	29	4	21	55	7	3	1	8	19	55	7	21	54	8	26	4		—	

Stationary **:—Saturn—July 23 R, December 7 D; Jupiter—March 30 D, Dec. 31R; Mars—; Venus—June 15R, July 28D; Mercury—Feb. 21R, March 14 D, June 22 R, July 16 D, October 18 R, November 7 D,**

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 5	2	9	9 13 46	9 28 47	10 13 30	10 27 52	11 11 49	11 25 21	0 8 29
12	9	9	0 21 16	1 3 46	1 16 1	1 28 6	2 10 3	2 21 55	3 3 44
19	16	9	3 15 32	3 27 21	4 9 14	4 21 13	5 3 20	5 15 39	5 28 12
26	23	9	6 11 4	6 24 18	7 7 56	7 22 0	8 6 30	8 21 21	9 6 28
Feb. 2	30	9	9 21 43	10 6 55	10 21 54	11 6 32	11 20 43	0 4 25	0 17 39
9	8	10	1 0 28	1 12 55	1 25 5	2 7 3	2 18 53	3 0 41	3 12 28
16	14	10	3 24 18	4 6 13	4 18 14	5 0 23	5 12 41	5 25 10	6 7 51
23	21	10	6 20 46	7 3 57	7 17 27	8 1 17	8 15 29	9 0 1	9 14 51
Mar. 1	29	10	9 29 51	10 14 55	10 29 52	11 14 32	11 28 50	0 12 40	0 26 1
8	6	11	1 8 55	1 21 25	2 3 36	2 15 34	2 27 24	3 9 10	3 20 59
15	13	11	4 2 52	4 14 54	4 27 6	5 9 29	5 22 4	6 4 50	6 17 47
22	19	11	7 0 56	7 14 17	7 27 50	8 11 36	8 25 37	9 9 52	9 24 19
29	27	11	10 8 56	10 23 37	11 8 14	1 22 41	0 6 50	0 20 35	1 3 56
Apr. 5	4	12	1 16 52	1 29 24	2 11 38	2 23 38	3 5 29	3 17 18	3 29 8
12	11	12	4 11 6	4 23 14	5 5 35	5 18 12	6 1 4	6 14 10	6 27 30
19	18	12	7 11 1	7 24 41	8 8 30	8 22 26	9 6 28	9 20 36	10 4 49
26	25	12	10 19 5	11 3 20	11 17 30	0 1 31	0 15 18	0 28 47	1 11 56
May 3	3	1	1 24 45	2 7 15	2 19 28	3 1 29	3 13 22	3 25 11	4 7 4
10	9	1	4 19 3	5 1 15	5 13 42	5 26 27	6 9 32	6 22 56	7 6 37
17	16	1	7 20 33	8 4 39	8 18 52	9 3 8	9 17 24	10 1 38	10 15 48
24	24	1	10 29 51	11 13 46	11 27 32	0 11 6	0 24 27	1 7 33	1 20 23
31	1	2	2 2 59	2 15 19	2 27 28	3 9 26	3 21 18	4 3 8	4 15 1
June 7	8	2	4 27 0	5 9 11	5 21 39	6 4 27	6 17 36	7 1 10	7 15 5
14	15	2	7 29 20	8 13 51	8 28 30	9 13 12	9 27 50	10 12 20	10 26 37
21	23	2	11 10 39	11 24 25	0 7 54	0 21 7	1 4 5	1 16 49	1 29 20
28	30	2	2 11 39	2 23 48	3 5 49	3 17 43	3 29 33	4 11 23	4 23 16
July 5	6	3	5 5 15	5 17 25	5 29 50	6 12 34	6 25 42	7 9 15	7 23 14
12	13	3	8 7 38	8 22 22	9 7 21	9 22 25	10 7 27	10 22 17	11 6 49
19	21	3	11 20 58	0 4 44	0 18 7	1 1 8	1 13 51	1 26 19	2 8 34
26	28	3	2 20 40	3 2 39	3 14 32	3 26 23	4 8 13	4 20 4	5 1 58
Aug. 2	5	4	5 13 59	5 26 9	6 8 32	6 21 12	7 4 14	7 17 40	8 1 32
9	12	4	8 15 52	9 0 37	9 15 42	10 0 57	10 16 14	11 1 20	11 16 7
16	20	4	0 0 28	0 14 21	0 27 46	1 10 45	1 23 21	2 5 41	2 17 47
23	27	4	2 29 44	3 11 36	3 23 26	4 5 16	4 17 7	4 29 2	5 11 2
30	3	5	5 23 9	6 5 24	6 17 50	7 0 31	7 13 29	7 26 47	8 10 30
Sept. 6	10	5	8 24 39	9 9 12	9 24 7	10 9 17	10 24 33	11 9 43	11 24 37
13	18	5	0 9 6	0 23 7	1 6 37	1 19 40	2 2 17	2 14 35	2 26 39
20	25	5	3 8 34	3 20 23	4 2 12	4 14 4	4 26 0	5 8 2	5 20 12
27	2	6	6 2 31	6 14 58	6 27 35	7 10 24	7 23 26	8 6 45	8 20 22
Oct. 4	9	6	9 4 19	9 18 37	10 3 13	10 18 4	11 3 3	11 17 59	0 2 45
11	17	6	0 17 11	1 1 12	1 14 46	1 27 52	2 10 34	2 22 55	3 5 0
18	24	6	3 16 56	3 28 46	4 10 37	4 22 31	5 4 32	5 16 43	5 29 5
25	30	6	6 11 38	6 24 23	7 7 19	7 20 26	8 3 45	8 17 15	9 0 57
Nov. 1	7	7	9 14 52	9 29 0	10 13 18	10 27 46	11 12 18	11 26 48	0 11 10
8	15	7	0 25 19	1 9 8	1 22 35	2 5 39	2 18 22	3 0 46	3 12 54
15	22	7	3 24 52	4 6 44	4 18 36	5 0 32	5 12 36	5 24 55	6 7 23
22	29	7	6 20 10	7 3 13	7 16 31	8 0 3	8 13 48	8 27 42	9 11 43
29	6	8	9 25 50	10 9 59	10 24 11	11 8 21	11 22 28	0 6 29	0 20 21
Dec. 6	14	8	1 4 2	1 17 28	2 0 39	2 13 32	2 26 9	3 8 31	3 20 39
13	20	8	4 2 38	4 14 32	4 26 24	5 8 19	5 20 23	6 2 39	6 15 12
20	27	8	6 28 4	7 11 18	7 24 53	8 8 49	8 23 1	9 7 25	9 21 55
27	4	9	10 6 26	10 20 53	11 5 11	11 19 17	0 3 11	0 16 50	1 0 17
Jan. 3	12	9	1 13 30	—	—	—	—	—	—

Rahu (रा ☊ श्रा) on 1st of each month					
	Jan. :	2 21 53	2 20 14	2 18 42	2 17 4
	May :	2 15 28	2 13 50	2 12 15	2 10 36
	Sept. :	2 8 57	2 7 21	2 5 43	2 4 8

1909 A.D. 1315-16 B.S. *Ayanamsa* 22° 34' 59" CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			शा ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ ও			बु ☿ बू			☿ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 3	19	9	11	11	29	4	21	55	7	3	1	8	19	55	7	21	54	8	26	4	9	1	0
10	26	9	11	11	52	4	21	45	7	7	39	8	27	3	8	0	37	9	7	38	9	12	37
17	4	10	11	12	19	4	21	26	7	12	18	9	4	11	8	9	20	9	19	8	9	23	48
24	11	10	11	12	51	4	20	57	7	16	58	9	11	19	8	18	4	9	29	25	10	2	48
31	18	10	11	13	27	4	20	21	7	21	38	9	18	25	8	26	47	10	5	35	10	5	57
Feb. 7	25	10	11	14	6	4	19	38	7	26	18	9	25	31	9	5	31	10	3	54	10	0	54
14	2	11	11	14	48	4	18	49	8	1	0	10	2	36	9	14	15	9	26	18	9	23	24
21	9	11	11	15	33	4	17	57	8	5	41	10	9	39	9	22	59	9	21	8	9	20	42
28	16	11	11	16	20	4	17	2	8	10	23	10	16	42	10	1	43	9	21	39	9	23	17
Mar. 7	23	11	11	17	9	4	16	7	8	15	5	10	23	42	10	10	26	9	26	24	9	29	18
14	1	12	11	18	0	4	15	14	8	19	47	11	0	42	10	19	8	10	3	45	10	7	27
21	8	12	11	18	52	4	14	25	8	24	28	11	7	39	10	27	51	10	12	48	10	17	6
28	15	12	11	19	44	4	13	41	8	29	10	11	14	35	11	6	32	10	23	10	10	27	58
Apr. 4	22	12	11	20	37	4	13	3	9	3	51	11	21	30	11	15	13	11	4	42	11	10	0
11	29	12	11	21	30	4	12	34	9	8	31	11	28	22	11	23	54	11	17	25	11	23	14
18	5	1	11	22	22	4	12	13	9	13	10	0	5	13	0	2	33	0	1	20	0	7	37
25	12	1	11	23	14	4	12	0	9	17	48	0	12	3	0	11	13	0	16	8	0	22	33
May 2	19	1	11	24	4	4	11	57	9	22	23	0	18	51	0	19	51	1	0	49	1	6	40
9	26	1	11	24	53	4	12.	2	9	26	57	0	25	47	0	28	29	1	13	47	1	18	33
16	2	2	11	25	40	4	12	17	10	1	27	1	2	22	1	7	6	1	24	3	1	27	29
23	9	2	11	26	25	4	12	40	10	5	53	1	9	7	1	15	42	2	1	8	2	3	8
30	16	2	11	27	7	4	13	11	10	10	14	1	15	50	1	24	18	2	4	43	2	5	6
June 6	23	2	11	27	46	4	13	49	10	14	29	1	22	32	2	2	54	2	4	34	2	3	30
13	30	2	11	28	22	4	14	35	10	18	37	1	29	13	2	11	29	2	1	27	1	29	46
20	6	3	11	28	55	4	15	26	10	22	36	2	5	54	2	20	4	1	27	48	1	26	49
27	13	3	11	29	23	4	16	24	10	26	24	2	12	35	2	28	38	1	26	27	1	27	1
July 4	20	3	11	29	47	4	17	27	10	29	59	2	19	15	3	7	12	1	28	54	2	1	9
11	27	3	0	0	7	4	18	35	11	3	18	2	25	55	3	15	45	2	5	15	2	9	6
18	2	4	0	0	22	4	19	47	11	6	18	3	2	36	3	24	18	2	15	13	2	20	27
25	9	4	0	0	33	4	21	3	11	8	55	3	9	17	4	2	50	2	28	8	3	4	15
Aug. 1	16	4	0	0	38	4	22	23	11	11	5	3	15	59	4	11	21	3	12	37	3	18	52
8	23	4	0	0	37	4	23	44	11	12	44	3	22	40	4	19	50	3	26	59	4	2	52
15	30	4	0	0	33	4	25	9	11	13	48	3	29	28	4	28	10	4	10	23	4	15	46
22	6	5	0	0	23	4	26	36	11	14	12	4	6	8	5	6	47	4	22	36	4	27	30
29	13	5	0	0	8	4	28	4	11	13	55	4	12	53	5	15	13	5	3	42	5	8	8
Sept. 5	20	5	11	29	49	4	29	34	11	12	58	4	19	40	5	23	38	5	13	42	5	17	38
12	27	5	11	29	26	5	1	4	11	11	27	4	26	28	6	2	1	5	22	29	5	25	47
19	3	6	11	28	59	5	2	35	11	9	33	5	3	18	6	10	22	5	29	37	6	1	59
26	10	6	11	28	30	5	4	6	11	7	31	5	10	9	6	18	41	6	4	11	6	4	56
Oct. 3	17	6	11	27	58	5	5	36	11	5	38	5	17	2	6	26	58	6	4	22	6	2	37
10	24	6	11	27	25	5	7	6	11	4	7	5	23	56	7	5	11	5	28	38	5	25	3
17	31	6	11	26	52	5	8	34	11	3	10	6	0	53	7	13	22	5	21	4	5	19	37
24	7	7	11	26	19	5	10	0	11	2	51	6	7	50	7	21	28	5	20	16	5	22	26
31	14	7	11	25	48	5	11	24	11	3	11	6	14	50	7	29	29	5	26	55	6	1	1
Nov. 7	21	7	11	25	18	5	12	46	11	4	8	6	21	51	8	7	24	6	7	1	6	11	43
14	28	7	11	24	52	5	14	4	11	5	37	6	28	53	8	15	11	6	18	6	6	22	54
21	5	8	11	24	30	5	15	18	11	7	36	7	5	57	8	22	49	6	29	17	7	4	3
28	12	8	11	24	12	5	16	27	11	9	59	7	13	2	9	0	13	7	10	22	7	15	6
Dec. 5	19	8	11	23	58	5	17	32	11	12	43	7	20	8	9	7	22	7	21	23	7	26	5
12	26	8	11	23	50	5	18	31	11	15	43	7	27	15	9	14	9	8	2	23	8	7	7
19	4	9	11	23	47	5	19	24	11	18	59	8	4	22	9	20	30	8	13	27	8	18	13
26	11	9	11	23	49	5	20	10	11	22	26	8	11	30	9	26	14	8	24	33	8	29	15
Jan. 2	18	9	11	23	56	5	20	47	11	26	2	8	18	37	10	1	9	9	5	21		—	

Stationary :—Saturn—August 6 R, December 20 D; Jupiter—May 1 D; Mars—Aug 24R, Oct. 24 D; Venus— ; Mercury—Feb. 3 R, Feb. 24 D, June 3 R, June 27 D, October 1R, Octoner 22 D,

EPHEMERIS Saka era 1830-31, Samvat 1965-66 1909 A.D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 3	12	9	1 13 30	1 26 32	2 9 20	2 21 56	3 4 21	3 16 35	3 28 40
10	19	9	4 10 37	4 22 30	5 4 22	5 16 16	5 28 17	6 10 29	6 22 57
17	25	9	7 5 47	7 19 1	8 2 41	8 16 47	9 1 17	9 16 6	10 1 4
24	3	10	10 16 4	11 0 56	11 15 33	11 29 49	0 13 44	0 27 17	1 10 30
31	10	10	1 23 25	2 6 6	2 18 35	3 0 53	3 13 4	3 25 9	4 7 8
Feb. 7	17	10	4 19 3	5 0 55	5 12 47	5 24 41	6 6 40	6 18 50	7 1 13
14	24	10	7 13 56	7 27 2	8 10 36	8 24 39	9 9 11	9 24 7	10 9 20
21	1	11	10 24 39	11 9 52	11 24 49	0 9 23	0 23 29	1 7 7	1 20 19
28	9	11	2 3 9	2 15 41	2 27 58	3 10 6	3 22 7	4 4 3	4 15 57
Mar. 7	15	11	4 27 50	5 9 43	5 21 37	6 3 35	6 15 38	6 27 50	7 10 14
14	22	11	7 22 53	8 5 54	8 19 19	9 3 12	9 17 33	10 2 20	10 17 28
21	30	11	11 2 46	11 18 5	0 3 11	0 17 56	1 2 14	1 16 2	1 29 22
28	7	12	2 12 15	2 24 48	3 7 3	3 19 7	4 1 4	4 12 56	4 24 48
Apr. 4	14	12	5 6 40	5 18 36	6 0 37	6 12 42	6 24 55	7 7 17	7 19 49
11	20	12	8 2 36	8 15 39	8 29 2	9 12 47	9 26 55	10 11 26	10 26 16
18	28	12	11 11 17	10 26 22	0 11 20	0 26 2	1 10 21	1 24 14	2 7 40
25	6	1	2 20 39	3 3 16	3 15 35	3 27 41	4 9 38	4 21 30	5 3 22
May 2	12	1	5 15 17	5 27 17	6 9 25	6 21 42	7 4 9	7 16 47	7 29 36
9	19	1	8 12 39	8 25 56	9 9 27	9 23 14	10 7 17	10 21 35	11 6 5
16	27	1	11 20 42	0 5 21	0 19 56	1 4 20	1 18 27	2 2 13	2 15 37
23	4	2	2 28 38	3 11 18	3 23 40	4 5 48	4 17 47	4 29 41	5 11 34
30	11	2	5 23 31	6 5 35	6 17 50	7 0 18	7 13 0	7 25 57	8 9 9
June 6	17	2	8 22 35	9 6 15	9 20 6	10 4 6	10 18 14	11 2 28	11 16 44
13	25	2	0 1 0	0 15 13	0 29 20	1 13 17	1 27 1	2 10 31	2 23 42
20	3	3	3 6 37	3 19 14	4 1 35	4 13 44	4 25 43	5 7 37	5 19 31
27	9	3	6 1 28	6 13 34	6 25 53	7 8 27	7 21 21	8 4 35	8 18 9
July 4	16	3	9 2 1	9 16 9	10 0 26	10 14 49	10 29 12	11 13 32	11 27 45
11	24	3	0 11 49	0 25 42	1 9 25	1 22 56	2 6 15	2 19 22	3 2 17
18	1	4	3 14 58	3 27 26	4 9 42	4 21 47	5 3 45	5 15 37	5 27 29
25	8	4	6 9 25	6 21 29	7 3 47	7 16 23	7 29 22	8 12 46	8 26 35
Aug. 1	15	4	9 10 48	9 25 20	10 10 5	10 24 54	11 9 39	11 24 14	0 8 34
8	22	4	0 22 35	1 6 20	1 19 47	2 2 59	2 15 58	2 28 44	3 11 20
15	30	4	3 23 46	4 6 2	4 18 10	5 0 10	5 12 3	5 23 54	6 5 44
22	6	4	6 17 37	6 29 39	7 11 53	7 24 27	8 7 24	8 20 48	9 4 41
29	13	4	9 19 3	10 3 49	10 18 53	11 4 3	11 19 10	0 4 4	0 18 39
Sept. 5	21	4	1 2 49	1 16 36	1 29 59	2 13 2	2 25 48	3 8 21	3 20 42
12	28	4	4 2 55	4 15 0	4 26 59	5 8 53	5 20 45	6 2 34	6 14 24
19	5	5	6 26 18	7 8 19	7 20 32	8 3 3	8 15 55	8 29 13	9 13 0
26	12	5	9 27 17	10 12 2	10 27 9	11 12 27	11 27 46	0 12 55	0 27 44
Oct. 3	19	5	1 12 7	1 26 3	2 9 32	2 22 37	3 5 20	3 17 47	4 0 0
10	27	5	4 12 4	4 24 2	5 5 55	5 17 46	5 29 37	6 11 29	6 23 23
17	3	6	7 5 23	7 17 30	7 29 48	8 12 20	8 25 11	9 8 24	9 22 3
24	10	6	10 6 8	10 20 38	11 5 31	11 20 38	0 5 52	0 21 0	1 5 55
31	18	6	1 20 27	2 4 34	2 18 12	3 1 24	3 14 12	3 26 41	4 8 53
Nov. 7	25	6	4 20 54	5 2 48	5 14 39	5 26 29	6 8 22	6 20 19	7 2 22
14	1	7	7 14 33	7 26 54	8 9 26	8 22 11	9 5 10	9 18 27	10 2 2
21	9	7	10 15 57	11 0 10	11 14 41	11 29 24	0 14 15	0 29 6	1 13 49
28	16	7	1 28 17	2 12 24	2 26 8	3 9 27	3 22 22	4 4 55	4 17 11
Dec. 5	23	7	4 29 13	5 11 7	5 22 57	6 4 48	6 16 43	6 28 46	7 10 59
12	30	7	7 23 25	8 6 4	8 18 57	9 2 4	9 15 25	9 28 58	10 12 42
19	7	8	10 26 37	11 10 42	11 24 55	0 9 14	0 23 36	1 7 58	1 22 15
26	15	8	2 6 23	2 20 17	3 3 54	3 17 11	4 0 7	4 12 43	4 25 0
Jan. 2	22	8	5 7 6	—	—	—	—	—	—

Rahu (रा ☊ शी) on 1st of each month					
	Jan. :	2 2 29	2 0 51	1 29 22	1 27 43
	May :	1 26 8	1 24 29	1 22 54	1 21 15
	Sept. :	1 19 36	1 18 1	1 16 22	1 14 47

1910 A.D. 1316-17 B.S. *Ayanamsa* 22° 35′ 51″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 2	18	9	11	23	56	5	20	47	11	26	2	8	18	37	10	1	9	9	5	21	9	9	41
9	25	9	11	24	10	5	21	19	11	29	48	8	25	46	10	5	3	9	14	45	9	17	40
16	3	10	11	24	28	5	21	40	0	3	41	9	2	54	10	7	34	9	19	43	9	19	23
23	10	10	11	24	52	5	21	53	0	7	39	9	10	2	10	8	19	9	16	22	9	12	48
30	17	10	11	25	19	5	21	57	0	11	41	9	17	8	10	7	4	9	8	1	9	5	27
Feb. 6	24	10	11	25	51	5	21	51	0	15	47	9	24	14	10	3	46	9	3	58	9	4	13
13	1	11	11	26	28	5	21	36	0	19	57	10	1	19	9	29	43	9	5	59	9	8	9
20	8	11	11	27	7	5	21	12	0	24	9	10	8	23	9	25	44	9	11	51	9	15	6
27	15	11	11	27	50	5	20	40	0	28	23	10	15	26	9	23	10	9	19	54	9	23	49
Mar. 6	22	11	11	28	35	5	20	1	1	2	38	10	22	27	9	22	34	9	29	22	10	3	46
13	29	11	11	29	23	5	19	15	1	6	55	10	29	26	9	23	52	10	9	55	10	14	44
20	6	12	0	0	12	5	18	25	1	11	13	11	6	24	9	26	45	10	21	27	10	26	43
27	13	12	0	1	3	5	17	32	1	15	31	11	13	20	10	0	51	11	4	2	11	9	45
Apr. 3	20	12	0	1	56	5	16	36	1	19	50	11	20	15	10	5	54	11	17	40	11	23	49
10	27	12	0	2	49	5	15	45	1	24	10	11	27	8	10	11	39	0	2	9	0	8	25
17	4	1	0	3	42	5	14	54	1	28	30	0	4	0	10	17	55	0	16	30	0	22	12
24	11	1	0	4	35	5	14	8	2	2	50	0	10	49	10	24	37	0	29	1	1	3	27
May 1	18	1	0	5	28	5	13	27	2	7	11	0	17	37	11	1	37	1	8	19	1	11	9
8	25	1	0	6	21	5	12	54	2	11	31	0	24	24	11	8	52	1	13	46	1	14	51
15	1	2	0	7	12	5	12	28	2	15	52	1	1	10	11	16	19	1	15	4	1	14	26
22	8	2	0	8	1	5	12	10	2	20	13	1	7	54	11	23	56	1	12	45	1	11	6
29	15	2	0	8	49	5	12	2	2	24	34	1	14	37	0	1	40	1	8	55	1	7	34
June 5	22	2	0	9	35	5	12	2	2	28	55	1	21	20	0	9	31	1	6	35	1	6	34
12	29	2	0	10	18	5	12	11	3	3	16	1	28	1	0	17	28	1	7	35	1	9	8
19	5	3	0	10	58	5	12	29	3	7	38	2	4	42	0	25	29	1	12	11	1	15	10
26	12	3	0	11	35	5	12	54	3	12	0	2	11	23	1	3	34	1	20	0	1	24	16
July 3	19	3	0	12	8	5	13	28	3	16	22	2	18	3	1	11	42	2	0	46	2	6	12
10	26	3	0	12	38	5	14	9	3	20	46	2	24	44	1	19	55	2	14	3	2	20	13
17	1	4	0	13	3	5	14	56	3	25	7	3	1	24	1	28	10	2	28	51	3	5	15
24	8	4	0	13	24	5	15	50	3	29	31	3	8	5	2	6	28	3	13	35	3	19	36
31	15	4	0	13	40	5	16	50	4	3	55	3	14	47	2	14	49	3	27	15	4	2	43
Aug. 7	22	4	0	13	52	5	17	54	4	8	20	3	21	29	2	23	13	4	9	37	4	14	31
14	29	4	0	13	58	5	19	4	4	12	46	3	28	12	3	1	39	4	20	41	4	25	2
21	5	5	0	13	59	5	20	18	4	17	12	4	4	56	3	10	9	5	0	27	5	4	12
28	12	5	0	13	55	5	21	35	4	21	40	4	11	41	3	18	40	5	8	44	5	11	43
Sept 4	19	5	0	13	46	5	22	56	4	26	8	4	18	28	3	27	15	5	15	2	5	16	54
11	26	5	0	13	32	5	24	20	5	0	38	4	25	16	4	5	51	5	18	20	5	18	27
18	1	6	0	13	13	5	25	46	5	5	8	5	2	5	4	14	29	5	17	2	5	14	48
25	8	6	0	12	50	5	27	13	5	9	40	5	8	56	4	23	9	5	10	41	5	7	27
Oct. 2	15	6	0	12	24	5	28	43	5	14	14	5	15	49	5	1	51	5	4	21	5	3	37
9	22	6	0	11	54	6	0	13	5	18	48	5	22	43	5	10	34	5	5	4	5	7	44
16	29	6	0	11	21	6	1	44	5	23	23	5	29	38	5	19	18	5	12	45	5	17	12
23	6	7	0	10	48	6	3	15	5	28	1	6	6	35	5	28	3	5	23	38	5	28	37
30	13	7	0	10	14	6	4	46	6	2	40	6	13	34	6	6	50	6	5	18	6	10	18
Nov 6	20	7	0	9	41	6	6	17	6	7	21	6	20	35	6	15	37	6	16	52	6	21	45
13	27	7	0	9	9	6	7	46	6	12	3	6	27	38	6	24	24	6	28	10	7	2	55
20	4	8	0	8	39	6	9	14	6	16	47	7	4	41	7	3	12	7	9	13	7	13	54
27	11	8	0	8	12	6	10	40	6	21	33	7	11	46	7	12	0	7	20	6	7	24	44
Dec. 4	18	8	0	7	49	6	12	3	6	26	20	7	18	52	7	20	48	8	0	53	8	5	28
11	25	8	0	7	31	6	13	23	7	1	9	7	25	58	7	29	37	8	11	31	8	15	57
18	3	9	0	7	17	6	14	40	7	6	0	8	3	5	8	8	25	8	21	38	8	25	35
25	10	9	0	7	8	6	15	52	7	10	52	8	10	13	8	17	13	9	0	4	9	2	29
Jan. 1	17	9	0	7	5	6	16	59	7	15	46	8	17	21	8	26	1	9	3	45		—	

Stationary :—Saturn—August 20 R; Jupiter—January 29 R, June 1D; Mars—; Venus—January 23 R, March 5D; Mercury—Jan. 18R, Feb. 8D, May 15 R, June 8 D, September 14 R, October 6 D.

Date	*Tithi* & *Month*	*Nirayana* Long. of Moon (च ☽ ५) at 5-30 P.M. I.S.T.						
		Sunday	Monday	Tuesday	W.ednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 2	22 8	5 7 6	5 19 1	6 0 51	6 12 41	6 24 37	7 6 43	7 19 4
9	28 8	8 1 42	8 14 33	8 27 54	9 11 27	9 25 16	10 9 16	10 23 22
16	5 9	11 7 33	11 21 43	0 5 51	0 19 56	1 3 56	1 17 51	2 1 40
23	13 9	2 15 21	2 28 51	3 12 9	3 25 13	4 8 0	4 20 32	5 2 49
30	20 9	5 14 53	5 26 47	6 8 37	6 20 26	7 2 21	7 14 27	7 26 49
Feb. 6	26 9	8 9 31	8 22 37	9 6 8	9 20 2	10 4 17	10 18 45	11 3 21
13	4 10	11 17 56	0 2 25	0 16 44	1 0 50	1 14 43	1 28 23	2 11 51
20	11 10	2 25 8	3 8 14	3 21 10	4 3 54	4 16 26	4 28 47	5 10 57
27	18 10	5 22 57	6 4 49	6 16 37	6 28 25	7 10 19	7 22 22	8 4 42
Mar. 6	25 10	8 7 22	9 0 28	9 14 2	9 28 5	10 12 33	10 27 20	11 12 19
13	2 11	11 27 19	0 12 12	0 26 50	1 11 10	1 25 9	2 8 49	2 22 9
20	10 11	3 5 13	3 18 3	4 0 40	4 13 7	4 25 24	5 7 32	5 19 32
27	17 11	6 1 26	6 13 15	6 25 3	7 6 52	7 18 46	8 0 49	8 13 7
Apr. 3	23 11	8 25 44	9 8 46	9 22 15	10 6 13	10 20 39	11 5 29	11 20 35
10	1 12	0 5 48	0 20 57	1 5 54	1 20 32	2 4 45	2 18 34	3 1 58
17	8 12	3 15 1	3 27 44	4 10 12	4 22 27	5 4 32	5 16 30	5 28 23
24	15 12	6 10 12	6 22 1	7 3 50	7 15 43	7 27 42	8 9 51	8 22 13
May 1	22 12	9 4 51	9 17 50	10 1 13	10 15 2	10 29 17	11 13 55	11 28 53
8	29 12	0 14 1	0 29 12	1 14 15	1 29 3	2 13 28	2 27 28	3 11 1
15	7 1	3 24 9	4 6 54	4 19 20	5 1 30	5 13 30	5 25 22	6 7 11
22	13 1	6 18 59	7 0 49	7 12 44	7 24 46	8 6 55	8 19 16	9 1 49
29	20 1	9 14 37	9 27 41	10 11 3	10 24 46	11 8 49	11 23 11	0 7 50
June 5	28 1	0 22 41	1 7 37	1 22 31	2 7 15	2 21 41	3 5 46	3 19 25
12	5 2	4 2 38	4 15 26	4 27 54	5 10 5	5 22 3	6 3 54	6 15 42
19	12 2	6 27 31	7 9 26	7 21 28	8 3 41	8 16 6	8 28 44	9 11 35
26	19 2	9 24 40	10 7 59	10 21 30	11 5 15	11 19 13	0 3 22	0 17 42
July 3	26 2	1 2 11	1 16 44	2 1 17	2 15 44	2 29 58	3 13 55	3 27 31
10	4 3	4 10 43	4 23 33	5 6 2	5 18 13	6 0 12	6 12 3	6 23 51
17	10 3	7 5 42	7 17 41	7 29 51	8 12 15	8 24 56	9 7 54	9 21 8
24	17 3	10 4 36	10 18 17	11 2 7	11 16 4	0 0 6	0 14 12	0 28 21
31	25 3	1 12 32	1 26 42	2 10 50	2 24 52	3 8 45	3 22 24	4 5 47
Aug. 7	2 4	4 18 50	5 1 34	5 14 0	5 26 9	6 8 7	6 19 57	7 1 46
14	9 4	7 13 38	7 25 38	8 7 53	8 20 25	9 3 18	9 16 32	10 0 7
21	16 4	10 14 0	10 28 6	11 12 21	11 26 40	0 10 57	0 25 12	1 9 20
28	23 4	1 23 22	2 7 17	2 21 4	3 4 42	3 18 10	4 1 26	4 14 28
Sept. 4	1 5	4 27 16	5 9 48	5 22 6	6 4 11	6 16 5	6 27 54	7 9 41
11	7 5	7 21 32	8 3 32	8 15 47	8 28 21	9 11 18	9 24 40	10 8 27
18	14 5	10 22 38	11 7 6	11 21 46	0 6 30	0 21 11	1 5 43	1 20 3
25	22 5	2 4 9	2 17 59	3 1 34	3 14 56	3 28 3	4 10 57	4 23 39
Oct. 2	29 5	5 6 8	5 18 25	6 0 32	6 12 30	6 24 21	7 6 7	7 17 54
9	6 6	7 29 44	8 11 42	8 23 55	9 6 25	9 19 19	10 2 39	10 16 27
16	13 6	11 0 40	11 15 18	0 0 13	0 15 17	1 0 21	1 15 16	1 29 55
23	20 6	2 14 15	2 28 13	3 11 49	3 25 8	4 7 59	4 20 38	5 3 3
30	28 6	5 15 16	5 27 20	6 9 17	6 21 8	7 2 55	7 14 42	7 26 30
Nov. 6	4 7	8 8 23	8 20 23	9 2 35	9 15 3	9 27 51	10 11 3	10 24 40
13	11 7	11 8 45	11 23 16	0 8 9	0 23 18	1 8 32	1 23 44	2 8 42
20	19 7	2 23 20	3 7 32	3 21 18	4 4 36	4 17 30	5 0 3	5 12 20
27	26 7	5 24 23	6 6 18	6 18 7	6 29 54	7 11 42	7 23 31	8 5 25
Dec. 4	3 8	8 17 26	8 29 34	9 11 53	9 24 25	10 7 13	10 20 19	11 3 46
11	10 8	11 17 36	0 1 49	0 16 25	1 1 20	1 16 26	2 1 36	2 16 40
18	17 8	3 1 27	3 15 52	3 29 49	4 13 16	4 26 16	5 8 51	5 21 7
25	24 8	6 3 8	6 14 59	6 26 46	7 8 32	7 20 31	8 2 16	8 14 20
Jan. 1	1 9	8 26 32	—	—	—	—	—	—

Rahu (रा ☊ रा) on 1st of each month	Jan. :	1 13 8	1 11 30	1 10 1	1 8 22
	May :	1 6 47	1 5 9	1 3 33	1 1 55
	Sept. :	1 0 16	0 28 41	0 27 2	0 25 26

1911 A.D. 1317-18 B.S. *Ayanamsa* 22° 36′ 44″ CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ न			बृ ♃ ह			म ♂ मं			र ☉ व			शु ♀ क्र			बु ☿ बू			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	0	7	5	6	16	59	7	15	46	8	17	21	8	26	1	9	3	45	9	2	47
8	24	9	0	7	7	6	18	1	7	20	42	8	24	30	9	4	48	8	28	58	8	25	2
15	1	10	0	7	15	6	18	57	7	25	40	9	1	37	9	13	36	8	20	23	8	18	17
22	8	10	0	7	28	6	19	47	8	0	39	9	8	45	9	22	22	8	17	38	8	18	31
29	15	10	0	7	46	6	20	29	8	5	40	9	15	52	10	1	8	8	21	3	8	23	40
Feb. 5	22	10	0	8	9	6	21	3	8	10	43	9	22	58	10	9	54	8	27	51	9	1	24
12	29	10	0	8	37	6	21	30	8	15	47	10	0	3	10	18	38	9	6	30	9	10	34
19	7	11	0	9	9	6	21	47	8	20	52	10	7	7	10	27	20	9	16	16	9	20	45
26	14	11	0	9	45	6	21	55	8	25	59	10	14	10	11	6	2	9	26	56	10	1	45
Mar. 5	21	11	0	10	25	6	21	54	9	1	7	10	21	11	11	14	41	10	8	26	10	13	38
12	28	11	0	11	8	6	21	44	9	6	17	10	28	11	11	23	19	10	20	50	10	26	25
19	5	12	0	11	54	6	21	25	9	11	27	11	5	9	0	1	55	11	4	8	11	10	6
26	12	12	0	12	41	6	20	58	9	16	39	11	12	6	0	10	28	11	18	12	11	24	17
Apr. 2	19	12	0	13	31	6	20	23	9	21	51	11	19	1	0	18	59	0	2	8	0	7	37
9	26	12	0	14	23	6	19	41	9	27	4	11	25	54	0	27	26	0	14	4	0	18	6
16	3	1	0	15	15	6	18	53	10	2	17	0	2	46	1	5	51	0	22	12	0	24	16
23	10	1	0	16	9	6	18	2	10	7	30	0	9	36	1	14	12	0	25	37	0	25	36
30	17	1	0	17	3	6	17	9	10	12	43	0	16	24	1	22	30	0	24	25	0	22	51
May 7	24	1	0	17	56	6	16	16	10	17	56	0	23	11	2	0	43	0	20	23	0	18	39
14	31	1	0	18	50	6	15	24	10	23	7	0	29	57	2	8	51	0	16	55	0	16	18
21	7	2	0	19	43	6	14	35	10	28	17	1	6	41	2	16	54	0	16	31	0	17	28
28	14	2	0	20	35	6	13	52	11	3	26	1	13	25	2	24	51	0	19	44	0	22	6
June 4	21	2	0	21	25	6	13	14	11	8	33	1	20	8	3	2	40	0	26	4	0	29	37
11	28	2	0	22	14	6	12	44	11	13	37	1	26	49	3	10	21	1	5	3	1	9	39
18	3	3	0	23	0	6	12	22	11	18	38	2	3	30	3	17	52	1	16	26	1	22	1
25	10	3	0	23	44	6	12	8	11	23	35	2	10	11	3	25	10	2	0	0	2	6	20
July 2	17	3	0	24	25	6	12	3	11	28	27	2	16	52	4	2	14	2	15	0	2	21	31
9	24	3	0	25	3	6	12	7	0	3	15	2	23	32	4	9	0	2	29	59	3	6	8
16	31	3	0	25	38	6	12	20	0	7	56	3	0	12	4	15	23	3	13	54	3	19	24
23	7	4	0	26	9	6	12	41	0	12	31	3	6	53	4	21	16	3	26	19	4	1	13
30	14	4	0	26	35	6	13	10	0	16	58	3	13	35	4	26	33	4	7	17	4	11	31
Aug. 6	21	4	0	26	57	6	13	47	0	21	16	3	20	17	5	1	0	4	16	43	4	20	14
13	28	4	0	27	15	6	14	31	0	25	23	3	26	59	5	4	24	4	24	22	4	26	58
20	3	5	0	27	27	6	15	22	0	29	18	4	3	43	5	6	26	4	29	40	5	0	58
27	10	5	0	27	35	6	16	19	1	2	59	4	10	28	5	6	46	5	1	33	5	0	59
Sept. 3	17	5	0	27	37	6	17	22	1	6	24	4	17	15	5	5	12	4	28	49	4	26	16
10	24	5	0	27	34	6	18	30	1	9	30	4	24	2	5	1	54	4	22	20	4	19	41
17	31	5	0	27	25	6	19	42	1	12	15	5	0	51	4	27	40	4	17	38	4	17	40
24	7	6	0	27	12	6	20	59	1	14	34	5	7	42	4	23	47	4	19	55	4	23	2
Oct. 1	14	6	0	26	54	6	22	19	1	16	23	5	14	34	4	21	20	4	28	34	5	3	23
8	21	6	0	26	31	6	23	45	1	17	39	5	21	28	4	20	49	5	10	13	5	15	28
15	28	6	0	26	5	6	25	9	1	18	17	5	28	24	4	22	11	5	22	28	5	27	39
22	5	7	0	25	36	6	26	38	1	18	13	6	5	21	4	25	8	6	4	26	6	9	25
29	12	7	0	25	4	6	28	8	1	17	25	6	12	20	4	29	20	6	15	57	6	20	45
Nov. 5	19	7	0	24	30	6	29	40	1	15	56	6	19	20	5	4	29	6	27	3	7	1	42
12	26	7	0	23	56	7	1	12	1	13	50	6	26	22	5	10	23	7	7	51	7	12	23
19	3	8	0	23	22	7	2	46	1	11	21	7	3	26	5	16	52	7	18	21	7	22	46
26	10	8	0	22	50	7	4	19	1	8	43	7	10	30	5	23	47	7	28	31	8	2	41
Dec. 3	17	8	0	22	19	7	5	52	1	6	15	7	17	36	6	1	3	8	7	56	8	11	28
10	24	8	0	21	52	7	7	24	1	4	11	7	24	42	6	8	36	8	15	20	8	17	14
17	1	9	0	21	28	7	8	54	1	2	42	8	1	50	6	17	22	8	17	43	8	16	10
24	8	9	0	21	9	7	10	23	1	1	52	8	8	58	6	24	19	8	11	41	8	7	38
31	15	9	0	20	55	7	11	49	1	1	43	8	16	6	7	2	24	8	3	20	8	1	45
Jan. 7	22	9	0	20	44	7	13	12	1	2	10	8	23	13	7	10	34	8	1	57		—	

Stationary **:—Saturn—Jan. 1 D, Sept. 3 R ; Jupiter—Mar. 1R, July 3D ; Mars—Oct. 19R, Dec. 30D ; Venus—Aug. 25R, Oct. 7D ; Mercury—Jan. 1R, 22D, April 25 R, May 19 D, August 27 R, Sept. 19 D, Dec. 16 R, January 5D.**

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ८) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	1	9	8 26 32	9 8 56	9 21 30	10 4 16	10 17 13	11 0 24	11 13 50
8	8	9	11 27 31	0 11 29	0 25 45	1 10 16	1 25 0	2 9 50	2 24 39
15	16	9	3 9 19	3 23 41	4 7 40	4 21 13	5 4 18	5 16 58	5 29 17
22	23	9	6 11 20	6 23 12	7 4 59	7 16 46	7 28 39	8 10 40	8 22 53
29	29	9	9 5 19	9 18 0	10 0 54	10 14 1	10 27 20	11 10 48	11 24 26
Feb. 5	6	10	0 8 12	0 22 7	1 6 11	1 20 24	2 4 43	2 19 6	3 3 29
12	14	10	3 17 45	4 1 49	4 15 35	4 29 0	5 12 2	5 24 43	6 7 3
19	21	10	6 19 8	7 1 3	7 12 51	7 24 40	8 6 35	8 18 39	9 0 58
26	28	10	9 13 35	9 26 29	10 9 42	10 23 12	11 6 55	11 20 49	0 4 50
Mar. 5	5	11	0 18 56	1 3 3	1 17 11	2 1 17	2 15 22	2 29 24	3 13 20
12	12	11	3 27 7	4 10 44	4 24 7	5 7 13	5 20 3	6 2 35	6 14 52
19	19	11	6 26 55	7 8 50	7 20 40	8 2 30	8 14 25	8 26 30	9 8 50
26	26	11	9 21 30	10 4 30	10 17 54	11 1 39	11 15 43	0 0 2	0 14 36
Apr. 2	3	12	0 29 2	1 13 32	1 27 57	2 12 12	2 26 16	3 10 7	3 23 46
9	11	12	4 7 11	4 20 22	5 3 20	5 16 4	5 28 36	6 10 54	6 23 2
16	18	12	7 5 1	7 16 54	7 28 44	8 10 34	8 22 29	9 4 34	9 16 53
23	24	12	9 29 30	10 12 29	10 25 53	11 9 42	11 23 55	0 8 29	0 23 18
30	2	1	1 8 14	1 23 9	2 7 56	2 22 29	3 6 43	3 20 37	4 4 9
May 7	9	1	4 17 22	5 0 17	5 12 56	5 25 21	6 7 36	6 19 41	7 1 40
14	16	1	7 13 33	7 25 24	8 7 13	8 19 5	9 1 2	9 13 7	9 25 25
21	23	1	10 7 59	10 20 53	11 4 11	11 17 55	0 2 5	0 16 41	1 1 36
28	30	1	1 16 45	2 1 57	2 17 3	3 1 53	3 16 22	4 0 24	4 14 0
June 4	8	2	4 27 10	5 9 48	5 22 27	6 4 41	6 16 45	6 28 41	7 10 32
11	15	2	7 22 22	8 4 12	8 16 4	8 28 0	9 10 3	9 22 13	10 4 34
18	21	2	10 17 8	11 0 0	11 13 12	11 26 47	0 10 48	0 25 13	1 10 2
25	29	2	1 25 7	2 10 21	2 25 34	3 10 33	3 25 12	4 9 23	4 23 5
July 2	6	3	5 6 19	5 19 7	6 1 33	6 13 43	6 25 42	7 7 34	7 19 23
9	13	3	8 1 12	8 13 5	8 25 2	9 7 6	9 19 18	10 1 39	10 14 9
16	20	3	11 26 52	11 9 48	11 23 0	0 6 30	0 20 21	1 4 34	1 19 8
23	27	3	2 3 58	2 18 59	3 4 1	3 18 55	4 3 32	4 17 45	5 1 30
30	5	4	5 14 47	5 27 38	6 10 6	6 22 16	7 4 15	7 16 6	7 27 56
Aug. 6	12	4	8 9 47	8 21 44	9 3 49	9 16 4	9 28 29	10 11 5	10 23 52
13	18	4	11 6 50	11 19 59	0 3 21	0 16 56	1 0 45	1 14 49	1 29 8
20	26	4	2 13 38	2 28 17	3 12 57	3 27 32	4 11 53	4 25 56	5 9 35
27	3	5	5 22 50	6 5 40	6 18 10	7 0 22	7 12 22	7 24 15	8 6 6
Sept. 3	10	5	8 18 0	9 0 0	9 12 12	9 24 36	10 7 14	10 20 7	11 3 14
10	17	5	11 16 34	0 0 6	0 13 47	0 27 38	1 11 37	1 25 42	2 9 53
17	24	5	2 24 8	3 8 24	3 22 38	4 6 45	4 20 41	5 4 23	5 17 46
24	2	6	6 0 50	6 13 35	6 26 2	7 8 13	7 20 14	8 2 8	8 13 59
Oct. 1	9	6	8 25 54	9 7 56	9 20 9	10 2 38	10 15 25	10 28 31	11 11 56
8	15	6	11 25 39	0 9 37	0 23 46	1 8 2	1 22 22	2 6 41	2 20 56
15	23	6	3 5 6	3 19 8	4 2 59	4 16 40	5 0 8	5 13 23	5 26 24
22	30	6	6 9 11	6 21 44	7 4 3	7 16 11	7 28 10	8 10 3	8 21 54
29	7	7	9 3 47	9 15 47	9 27 59	10 10 26	10 23 13	11 6 22	11 19 56
Nov. 5	14	7	0 3 54	0 18 13	1 2 48	1 17 34	2 2 22	2 17 5	3 1 37
12	21	7	3 15 54	3 29 54	4 13 34	4 28 57	5 10 4	5 22 56	6 5 35
19	29	7	6 18 3	7 0 20	7 12 29	7 24 31	8 6 26	8 18 18	9 0 9
26	5	8	9 12 1	9 23 59	10 6 6	10 18 28	11 1 8	11 14 12	11 27 42
Dec. 3	12	8	0 11 41	0 26 7	1 10 56	1 26 2	2 11 15	2 26 24	3 11 19
10	20	8	3 25 53	4 10 3	4 23 46	5 7 4	5 20 0	6 2 39	6 15 2
17	27	8	6 27 15	7 9 20	7 21 19	8 3 14	8 15 6	8 26 58	9 8 50
24	4	9	9 20 44	10 2 43	10 14 50	10 27 8	11 9 43	11 22 38	0 5 58
31	11	9	0 19 46	1 4 3	1 18 48	2 3 56	2 19 16	3 4 39	3 19 51
Jan. 7	18	9	4 4 42	—	—	—	—	—	—

Rahu (रा ८ ग्रा) on 1st of each month

Jan. :	0 23 48	0 22 9	0 20 40	0 19 2
May. :	0 17 26	0 15 48	0 14 13	0 12 34
Sept. :	0 10 56	0 9 20	0 7 42	0 6 6

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			मं ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 7	22	9	0	20	44	7	13	12	1	2	10	8	23	13	7	10	34	8	1	57	8	3	25
14	29	9	0	20	40	7	14	32	1	3	11	9	0	21	7	18	52	8	6	36	8	9	38
21	7	10	0	20	42	7	15	48	1	4	42	9	7	28	7	27	13	8	14	16	8	18	4
28	14	10	0	20	49	7	16	59	1	6	38	9	14	36	8	5	38	8	23	26	8	27	38
Feb. 4	21	10	0	21	2	7	18	6	1	8	55	9	21	42	8	14	5	9	3	28	9	7	59
11	28	10	0	21	20	7	19	7	1	11	30	9	28	47	8	22	35	9	14	12	9	19	1
18	6	11	0	21	43	7	20	1	1	14	19	10	5	51	9	1	6	9	25	37	10	0	45
25	13	11	0	22	11	7	20	49	1	17	22	10	12	54	9	9	38	10	7	47	10	13	15
Mar. 3	20	11	0	22	43	7	21	29	1	20	25	10	19	56	9	18	12	10	20	44	10	26	31
10	27	11	0	23	18	7	22	1	1	23	56	10	26	56	9	26	46	11	4	20	11	10	10
17	4	12	0	23	58	7	22	25	1	27	25	11	3	55	10	5	21	11	17	43	11	22	57
24	11	12	0	24	41	7	22	40	2	1	1	11	10	52	10	13	56	11	28	58	0	2	31
31	18	12	0	25	26	7	22	46	2	4	42	11	17	47	10	22	31	0	5	44	0	6	55
Apr. 7	25	12	0	26	14	7	22	42	2	8	28	11	24	40	11	1	6	0	6	52	0	5	44
14	1	1	0	27	4	7	22	30	2	12	18	0	1	32	11	9	41	0	3	16	0	1	6
21	8	1	0	27	56	7	22	9	2	16	11	0	8	22	11	18	16	11	28	28	11	27	4
28	15	1	0	28	49	7	21	39	2	20	7	0	15	11	11	26	52	11	26	15	11	26	29
May 5	22	1	0	29	42	7	21	2	2	24	6	0	21	58	0	5	26	11	17	53	11	29	40
12	29	1	1	0	37	7	20	19	2	28	8	0	28	44	0	14	1	0	2	4	0	5	54
19	6	2	1	1	31	7	19	30	3	2	12	1	5	29	0	22	36	0	10	35	0	14	32
26	13	2	1	2	25	7	18	39	3	6	17	1	12	13	1	1	11	0	20	25	0	25	16
June 2	20	2	1	3	18	7	17	45	3	10	25	1	18	55	1	9	46	1	2	16	1	7	55
9	27	2	1	4	11	7	16	52	3	14	34	1	25	37	1	18	21	1	15	59	1	22	21
16	2	3	1	5	2	7	16	1	3	18	45	2	2	18	1	26	56	2	1	5	2	7	39
23	9	3	1	5	51	7	15	14	3	22	58	2	8	59	2	5	32	2	16	15	2	22	27
30	16	3	1	6	39	7	14	32	3	27	13	2	15	39	2	14	7	3	0	17	3	5	49
July 7	23	3	1	7	24	7	13	56	4	1	29	2	22	20	2	22	44	3	12	43	3	17	31
14	30	3	1	8	6	7	13	28	4	5	46	2	29	0	3	1	20	3	23	27	3	27	31
21	5	4	1	8	45	7	13	8	4	10	5	3	5	41	3	9	58	4	2	23	4	5	36
28	12	4	1	9	21	7	12	57	4	14	26	3	12	22	3	18	35	4	9	13	4	11	21
Aug. 4	19	4	1	9	53	7	12	55	4	18	48	3	19	4	3	27	13	4	13	16	4	13	55
11	26	4	1	10	21	7	13	2	4	23	12	3	25	47	4	5	51	4	13	34	4	12	22
18	2	5	1	10	44	7	13	18	4	27	38	4	2	31	4	14	30	4	9	38	4	7	3
25	9	5	1	11	3	7	13	42	5	2	6	4	9	15	4	23	8	4	3	41	4	1	50
Sept. 1	16	5	1	11	17	7	14	15	5	6	36	4	16	1	5	1	47	4	0	59	4	1	48
8	23	5	1	11	26	7	14	56	5	11	7	4	22	48	5	10	25	4	4	51	4	8	23
15	30	5	1	11	29	7	15	43	5	15	41	4	29	37	5	19	4	4	14	23	4	19	30
22	6	6	1	11	27	7	16	38	5	20	16	5	6	28	5	27	42	4	26	43	5	2	14
29	13	6	1	11	19	7	17	39	5	24	54	5	13	20	6	6	20	5	9	32	5	14	55
Oct. 6	20	6	1	11	7	7	18	45	5	29	34	5	20	13	6	14	57	5	21	55	5	27	1
13	27	6	1	10	49	7	19	57	6	4	16	5	27	9	6	23	34	6	3	40	6	8	31
20	4	7	1	10	27	7	21	13	6	9	0	6	4	6	7	2	11	6	14	51	6	19	29
27	11	7	1	10	1	7	22	34	6	13	46	6	11	4	7	10	47	6	25	32	6	29	59
Nov. 3	18	7	1	9	32	7	23	58	6	18	35	6	18	4	7	19	22	7	5	47	7	10	2
10	25	7	1	9	0	7	25	25	6	23	26	6	25	6	7	27	57	7	15	29	7	19	22
17	2	8	1	8	27	7	26	55	6	28	19	7	2	9	8	6	30	7	24	9	7	27	16
24	9	8	1	7	52	7	28	27	7	3	15	7	9	14	8	15	3	8	0	29	8	1	49
Dec. 1	16	8	1	7	18	8	0	1	7	8	13	7	16	19	8	23	33	8	1	31	7	29	24
8	23	8	1	6	45	8	1	36	7	13	13	7	23	26	9	2	2	7	24	31	7	20	29
15	30	8	1	6	14	8	3	12	7	18	16	8	0	33	9	10	28	7	16	43	7	15	45
22	7	9	1	5	46	8	4	48	7	23	21	8	7	40	9	18	50	7	16	43	7	18	44
29	14	9	1	5	22	8	6	23	7	28	28	8	14	48	9	27	9	7	22	32	7	25	55
Jan. 5	21	9	1	5	1	8	7	58	8	3	36	8	21	56	10	5	21	8	0	57	—		

Stationary :—Saturn—January 16 D, Sept. 17 R; Jupiter—April 1 R, Aug. 3 D; Mars—; Venus—; Mercury—Jan. 5 D, April 6 R, April 29 D, August 9 R, September 2 D, November 29 R, December 19 D.

Nirayana Long. of Moon (च ☽ ठ) at 5-30 P.M I.S.T

Date	Tithi & Month		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 7	18	9	4	4	42	4	19	7	5	3	1	5	16	26	5	29	24	6	12	0	6	24	18
14	25	9	7	6	24	7	18	21	8	0	14	8	12	5	8	23	56	9	5	49	9	17	46
21	2	10	9	29	46	10	11	53	10	24	6	11	6	30	11	19	6	0	1	49	0	15	12
28	9	10	0	28	49	1	12	52	1	27	21	2	12	13	2	27	21	3	12	36	3	27	46
Feb. 4	17	10	4	12	42	4	27	14	5	11	18	5	24	53	6	7	59	6	20	40	7	3	1
11	24	10	7	15	7	7	27	4	8	8	55,	8	20	45	9	2	38	9	14	34	9	26	37
18	30	10	10	8	48	10	21	6	11	3	34	11	16	12	11	29	1	0	12	4	0	25	22
25	7	11	1	8	57	1	22	51	2	7	5	2	21	35	3	6	19	3	21	10	4	6	0
Mar 3	15	11	4	20	41	5	5	4	5	19	6	6	2	42	6	15	53	6	28	40	7	11	7
10	22	11	7	23	18	8	5	17	8	17	10	8	29	2	9	10	56	9	22	56	10	5	5
17	29	11	10	17	26	10	29	58	11	12	43	11	25	42	0	8	53	0	22	17	1	5	53
24	6	12	1	19	40	2	3	39	2	17	47	3	2	3	3	16	25	4	0	48	4	15	9
31	13	12	4	29	22	5	13	23	5	27	8	6	10	34	6	23	40	7	6	26	7	18	55
Apr. 7	21	12	8	1	8	8	13	10	8	25	6	9	6	59	9	18	54	10	0	56	10	13	2
14	27	12	10	25	36	11	8	19	11	21	20	0	4	39	0	18	15	1	2	6	1	16	9
21	4	1	2	0	19	2	14	35	2	28	51	3	13	5	3	27	14	4	11	17	4	25	12
28	12	1	5	8	57	5	22	30	6	5	50	6	18	57	7	1	49	7	14	27	7	26	51
May 5	19	1	8	9	2	8	21	4	9	3	0	9	14	53	9	26	48	10	8	49	10	21	2
12	26	1	11	3	30	11	16	18	11	29	28	0	13	2	0	26	58	1	11	14	1	25	45
19	3	2	2	10	23	2	25	3	3	9	37	3	24	0	4	8	9	4	22	3	5	5	41
26	10	2	5	19	5	6	2	15	6	15	12	6	27	58	7	10	33	7	22	58	8	5	12
June 2	17	2	8	17	18	8	29	17	9	11	11	9	23	2	10	4	56	10	16	55	10	29	5
9	24	2	11	11	32	11	24	18	0	7	30	0	21	9	1	5	15	1	19	47	2	4	30
16	1	3	2	19	40	3	4	43	3	19	37	4	4	16	4	18	35	5	2	50	5	16	4
23	9	3	5	29	17	6	12	13	6	24	54	7	7	24	7	19	43	8	1	55	8	14	0
30	16	3	8	25	59	9	7	53	9	19	45	10	1	36	10	13	30	10	25	9	11	7	38
July 7	22	3	11	20	1	0	2	45	0	15	35	0	29	28	1	13	34	1	28	7	2	13	5
14	30	3	2	28	17	3	13	35	3	28	45	4	13	39	4	28	10	5	12	14	5	25	52
21	8	3	6	9	5	6	21	56	7	4	30	7	16	50	7	28	59	8	11	2	8	22	59
28	14	3	9	4	53	9	16	46	9	28	38	10	10	31	10	22	28	11	4	31	11	16	43
Aug. 4	21	3	11	29	8	0	11	51	0	24	56	1	8	26	1	22	23	2	6	48	2	21	37
11	28	3	3	6	45	3	22	0	4	7	14	4	22	14	5	6	54	5	21	7	6	4	52
18	6	4	6	18	10	7	1	4	7	13	38	7	25	55	8	8	1	8	19	59	9	1	53
25	13	4	9	13	45	9	25	37	10	7	32	10	19	32	11	1	37	11	13	50	11	26	12
Sept.1	20	4	0	8	47	0	21	37	1	4	44	1	18	12	2	2	2	2	16	14	3	0	47
8	27	4	3	15	37	4	0	35	4	15	35	5	0	27	5	15	4	5	29	19	6	13	9
15	5	5	6	26	32	7	9	32	7	22	9	8	4	29	8	16	35	8	28	32	9	10	25
22	11	5	9	22	16	10	4	11	10	16	11	10	28	18	11	10	36	11	23	4	0	5	44
29	18	5	0	18	37	1	1	44	1	15	5	1	28	40	2	12	30	2	26	34	3	10	51
Oct. 6	25	5	3	25	18	4	9	52	4	24	26	5	8	56	5	23	16	6	7	20	6	21	5
13	3	6	7	4	28	7	17	29	8	0	9	8	12	32	8	24	40	9	6	38	9	18	30
20	10	6	10	0	22	10	12	18	10	24	21	11	6	36	11	19	6	0	1	51	0	14	52
27	16	6	0	28	10	1	11	42	1	25	27	2	9	22	2	23	24	3	7	31	3	21	41
Nov. 3	24	6	4	5	51	4	20	1	5	4	8	5	18	10	6	2	3	6	15	45	6	29	14
10	1	7	7	12	27	7	25	22	8	8	0	8	20	22	9	2	30	9	14	28	9	26	19
17	8	7	10	8	10	10	20	4	11	2	8	11	14	26	11	27	2	0	9	59	0	23	13
24	15	7	1	6	59	1	20	59	2	5	13	2	19	36	3	4	2	3	18	25	4	2	43
Dec. 1	22	7	4	16	50	5	0	47	5	14	34	5	28	11	6	11	38	6	24	55	7	8	[illegible]
8	30	7	7	20	56	8	3	38	8	16	6	8	28	23	9	10	27	9	22	23	10	4	13
15	6	8	10	16	1	10	27	53	11	9	54	11	22	9	0	4	44	0	17	43	1	1	9
22	13	8	1	15	3	1	29	22	2	14	0	2	28	51	3	13	45	3	28	33	4	13	9
29	21	8	4	27	28	5	11	28	5	25	10	6	8	34	6	21	44	7	4	40	7	17	26
Jan. 5	28	8	8	0	0		—			—			—			—			—			—	

Rahu (रा ☊ श।) on 1st of each month

Jan. :	0	4	27	0	2	48	0	1	16	11	29	33
May :	11	28	3	11	26	24	11	24	49	11	23	10
Sept. .	11	21	32	11	19	56	11	18	18	11	16	43

1913 A.D. 1319-20 B.S. *Ayanāmsa* 22° 38' 34' CONDENSED.

Date	Beng. Date		Nirayana Longitudes at 5-30 P.M. I.S.T. on Sundays																					
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 5	21	9	1	5	1	8	7	58	8	3	36	8	21	56	10	5	21	8	0	57	8	4	59
12	28	9	1	4	46	8	9	32	8	8	48	8	29	4	10	13	27	8	10	35	8	14	55
19	6	10	1	4	36	8	11	5	8	14	1	9	6	12	10	21	26	8	20	51	8	25	26
26	13	10	1	4	31	8	12	35	8	19	16	9	13	19	10	29	15	9	1	39	9	6	26
Feb 2	20	10	1	4	32	8	14	3	8	24	33	9	20	25	11	6	51	9	12	58	9	18	0
9	27	10	1	4	39	8	15	28	8	29	52	9	27	31	11	14	12	9	24	54	10	0	12
16	4	11	1	4	51	8	16	50	9	5	12	10	4	35	11	21	14	10	7	28	10	13	1
23	11	11	1	5	8	8	18	7	9	10	33	10	11	38	11	27	52	10	20	32	10	26	8
Mar 2	18	11	1	5	31	8	19	19	9	15	56	10	18	40	0	3	58	11	3	19	11	8	14
9	25	11	1	5	58	8	20	27	9	21	19	10	25	41	0	9	26	11	13	45	11	16	47
16	3	12	1	6	29	8	21	28	9	26	44	11	2	40	0	14	2	11	19	1	11	19	15
23	10	12	1	7	5	8	22	23	10	2	8	11	9	37	0	17	29	11	17	45	11	15	38
30	17	12	1	7	44	8	23	12	10	7	33	11	16	32	0	19	29	11	12	17	11	9	57
Apr. 6	24	12	1	8	26	8	23	52	10	12	59	11	23	26	0	19	42	11	7	44	11	6	58
13	31	12	1	9	12	8	24	25	10	18	24	0	0	18	0	17	57	11	7	12	11	8	14
20	7	1	1	9	59	8	24	49	10	23	48	0	7	9	0	14	26	11	10	37	11	13	3
27	14	1	1	10	49	8	25	5	10	29	12	0	13	58	0	10	5	11	17	2	11	20	30
May 4	21	1	1	11	41	8	25	11	11	4	35	0	20	45	0	6	13	11	25	40	11	29	57
11	28	1	1	12	34	8	25	8	11	9	56	0	27	31	0	3	54	0	6	7	0	11	7
18	4	2	1	13	27	8	24	56	11	15	16	1	4	16	0	3	31	0	18	16	0	23	58
25	11	2	1	14	22	8	24	35	11	20	34	1	11	0	0	4	57	1	2	2	1	8	23
June 1	18	2	1	15	16	8	24	6	11	25	50	1	17	43	0	7	54	1	17	7	1	23	43
8	25	2	1	16	11	8	23	28	0	1	4	1	24	25	0	12	1	2	2	22	2	8	36
15	1	3	1	17	5	8	22	45	0	6	14	2	1	6	0	17	1	2	16	27	2	21	57
22	8	3	1	17	58	8	21	56	0	11	22	2	7	47	0	22	42	2	28	44	3	3	25
29	15	3	1	18	49	8	21	5	0	16	26	2	14	27	0	28	54	3	9	5	3	12	53
July 6	22	3	1	19	40	8	20	11	0	21	27	2	21	8	1	5	31	3	17	19	3	20	6
13	29	3	1	20	28	8	19	17	0	26	23	2	27	48	1	12	27	3	23	2	3	24	33
20	4	4	1	21	14	8	18	26	1	1	15	3	4	29	1	19	38	3	25	33	3	25	28
27	11	4	1	21	57	8	17	38	1	6	3	3	11	10	1	27	3	3	24	12	3	22	29
Aug. 3	18	4	1	22	37	8	16	56	1	10	45	3	17	52	2	4	37	3	19	33	3	17	18
10	25	4	1	23	14	8	16	20	1	15	21	3	24	35	2	12	22	3	14	55	3	14	2
17	1	5	1	23	47	8	15	52	1	19	52	4	1	18	2	20	14	3	14	26	3	16	2
24	8	5	1	24	17	8	15	33	1	24	16	4	8	2	2	28	13	3	19	49	3	23	46
31	15	5	1	24	41	8	15	23	1	28	33	4	14	48	3	6	19	4	0	11	4	5	34
Sept. 7	22	5	1	25	1	8	15	22	2	2	41	4	21	36	3	14	30	4	13	8	4	18	54
14	29	5	1	25	17	8	15	31	2	6	40	4	28	24	3	22	47	4	26	30	5	2	4
21	5	6	1	25	26	8	15	48	2	10	29	5	5	14	4	1	8	5	9	16	5	14	31
28	12	6	1	25	31	8	16	15	2	14	7	5	12	6	4	9	34	5	21	16	5	26	11
Oct. 5	19	6	1	25	30	8	16	50	2	17	32	5	18	59	4	18	3	6	2	32	6	7	10
12	26	6	1	25	24	8	17	33	2	20	42	5	25	54	4	26	36	6	13	10	6	17	11
19	2	7	1	25	13	8	18	24	2	23	34	6	2	51	5	5	12	6	23	9	6	27	12
26	9	7	1	24	56	8	19	22	2	26	7	6	9	49	5	13	50	7	2	20	7	5	56
Nov 2	16	7	1	24	35	8	20	26	2	28	17	6	16	49	5	22	31	7	10	14	7	12	55
9	23	7	1	24	9	8	21	36	3	0	0	6	23	51	6	1	13	7	15	26	6	16	11
16	30	7	1	23	41	8	22	51	3	1	12	7	0	53	6	9	57	7	15	6	7	12	30
23	7	8	1	23	9	8	24	11	3	1	50	7	7	57	6	18	43	7	7	22	7	3	34
30	14	8	1	22	35	8	25	35	3	1	49	7	15	3	6	27	29	7	0	27	7	0	4
Dec. 7	21	8	1	22	1	8	27	3	3	1	7	7	22	9	7	6	16	7	1	48	7	4	19
14	28	8	1	21	26	8	28	34	2	29	44	7	29	16	7	15	4	7	8	40	7	12	26
21	6	9	1	20	53	9	0	7	2	27	44	8	6	23	7	23	52	7	17	50	7	22	4
28	13	9	1	20	21	9	1	42	2	25	14	8	13	32	8	2	40	7	27	54	8	2	22
Jan. 4	20	9	1	19	52	9	3	19	2	22	27	8	20	39	8	11	27	8	28	23		—	

Stationary :—Saturn—January 29 D, October 1 R; Jupiter—May 6 R, Sept. 4D; Mars—Nov. 27R . Venus—Apr. 4R, May 16D; Mercury—Mar 19 R, Apr 11 D, July 22 R, Aug. 14 D. Nov 13 R, Dec. 3 D.

EPHEMERIS Saka era 1834-35, Samvat 1969-70 1913 A.D.

Nirayana Long. of Moon (च) ६) at 5-30 P M I.S T

Date	*Tithi & Month*	Sunday.	Monday.	Tuesday.	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 5	28 8	8 0 0	8 12 26	8 24 41	9 6 48	9 18 46	10 0 39	10 12 27
12	5 9	10 24 14	11 6 4	11 18 2	0 0 14	0 12 44	0 25 38	1 8 59
19	12 9	1 22 51	2 7 13	2 22 0	3 7 5	3 22 19	4 7 29	4 22 27
26	19 9	5 7 6	5 21 21	6 5 11	6 18 38	7 1 44	7 14 31	7 27 4
Feb. 2	27 9	8 9 25	8 21 36	9 3 39	9 15 36	9 27 29	10 9 18	10 21 6
9	3 10	11 2 55	11 14 48	11 26 48	0 9 0	0 21 29	1 4 18	1 17 32
16	10 10	2 1 13	2 15 24	3 0 2	3 15 2	4 0 16	4 15 33	5 0 44
23	18 10	5 15 38	6 0 9	6 14 14	6 27 52	7 11 4	7 23 53	8 6 24
Mar. 2	25 10	8 18 39	9 0 42	9 12 38	9 24 29	10 6 17	10 18 6	10 29 57
9	1 11	11 11 52	11 23 53	0 6 2	0 18 23	1 0 58	1 13 50	1 27 1
16	8 11	2 10 35	2 24 33	3 8 54	3 23 35	4 8 31	4 23 36	5 8 40
23	16 11	5 23 35	6 8 12	6 22 26	7 6 14	7 19 35	8 2 32	8 15 6
30	23 11	8 27 22	9 9 24	9 21 18	10 3 6	10 14 54	10 26 44	11 8 40
Apr. 6	30 11	11 20 44	0 2 58	0 15 23	0 28 0	1 10 51	1 23 56	2 7 16
13	7 12	2 20 52	3 4 44	3 18 51	4 3 12	4 17 45	5 2 26	5 17 8
20	15 12	6 1 46	6 16 13	7 0 23	7 14 11	7 27 36	8 10 36	8 23 15
27	22 12	9 5 34	9 17 38	9 29 31	10 11 20	10 23 9	11 5 2	11 17 4
May 4	28 12	11 29 18	0 11 46	0 24 29	1 7 27	1 20 41	2 4 8	2 17 46
11	5 1	3 1 35	3 15 32	3 29 36	4 13 46	4 28 0	5 12 16	5 26 33
18	13 1	6 10 46	6 24 50	7 8 43	7 22 19	8 5 36	8 18 33	9 1 10
25	20 1	9 13 29	9 25 33	10 7 28	10 19 17	11 1 7	11 13 2	11 25 8
June 1	27 1	0 7 29	0 20 8	1 3 7	1 16 26	2 0 3	2 13 56	2 28 0
8	4 2	3 12 11	3 26 24	4 10 36	4 24 46	5 8 51	5 22 52	6 6 47
15	12 2	6 20 35	7 4 14	7 17 43	8 0 59	8 14 0	8 26 45	9 9 14
22	19 2	9 21 29	10 3 30	10 15 23	10 27 12	11 9 1	11 20 57	0 3 4
29	25 2	0 15 28	0 28 13	1 11 21	1 24 54	2 8 50	2 23 5	3 7 34
July 6	2 3	3 22 9	4 6 45	4 21 15	5 5 35	5 19 44	6 3 39	6 17 23
13	10 3	7 0 53	7 14 12	7 27 19	8 10 13	8 22 55	9 5 24	9 17 41
20	17 3	9 29 47	10 11 43	10 23 33	11 5 20	11 17 9	11 29 4	0 11 10
27	24 3	0 23 33	1 6 18	1 19 28	2 3 5	2 17 8	3 1 36	3 16 22
Aug. 3	1 4	4 1 17	4 16 15	5 1 6	5 15 44	6 0 5	6 14 7	6 27 49
10	9 4	7 11 12	7 24 18	8 7 8	8 19 45	9 2 10	9 14 23	9 26 28
17	16 4	10 8 25	10 20 16	11 2 4	11 13 51	11 25 40	0 7 36	0 19 43
24	22 4	1 2 5	1 14 47	1 27 52	2 11 25	2 25 24	3 9 50	3 24 39
31	30 4	4 9 43	4 24 53	5 10 1	5 24 56	6 9 34	6 23 48	7 7 38
Sept. 7	7 5	7 21 3	8 4 5	8 16 48	8 29 14	9 11 26	9 23 29	10 5 24
14	14 5	10 17 14	10 29 2	11 10 50	11 22 40	0 4 35	0 16 37	0 28 46
21	21 5	1 11 14	1 23 55	2 6 57	2 20 21	3 4 10	3 18 24	4 3 1
28	28 5	4 17 57	5 3 4	5 18 14	6 3 18	6 18 7	7 2 34	7 16 34
Oct. 5	6 6	8 0 7	8 13 13	8 25 55	9 8 18	9 20 25	10 2 22	10 14 12
12	13 6	10 25 59	11 7 47	11 19 38	0 1 35	0 13 40	0 25 53	1 8 17
19	19 6	1 20 53	2 3 42	2 16 47	3 0 8	3 13 48	3 27 47	4 12 6
26	27 6	4 26 42	5 11 31	5 26 28	6 11 24	6 26 10	7 10 39	7 24 45
Nov 2	4 7	8 8 24	8 21 36	9 4 22	9 16 46	9 28 53	10 10 48	10 22 37
9	11 7	11 4 24	11 16 13	11 28 10	0 10 15	0 22 33	1 5 3	1 17 45
16	18 7	2 0 40	2 13 47	2 27 6	3 10 35	3 24 16	4 8 8	4 22 12
23	25 7	5 6 28	5 20 53	6 5 25	6 19 59	7 4 26	7 18 42	8 2 40
30	3 8	8 16 16	8 29 28	9 12 16	9 24 42	10 6 51	10 18 47	11 0 36
Dec. 7	9 8	11 12 23	11 24 15	0 6 15	0 18 28	1 0 56	1 13 42	1 26 44
14	16 8	2 10 2	2 23 34	3 7 16	3 21 6	4 5 2	4 19 1	5 3 4
21	23 8	5 17 9	6 1 16	6 15 24	6 29 29	7 13 29	7 27 20	8 10 58
28	1 9	8 24 19	9 7 21	9 20 3	10 2 27	10 14 35	10 26 31	11 8 21
Jan. 4	8 9	11 20 8	—	—	—	—	—	—

Rahu (रा ८ षा) on 1st of each month

Jan.	11 15 4	11 13 25	11 11 56	11 10 17
May ,	11 8 42	11 7 3	11 5 28	11 3 50
Sept. :	11 2 11	11 0 36	10 28 57	10 27 22

1914 A.D. 1320-21 B.S. *Ayanamsa* 22° 39′ 30″ CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			শ ♄ নি			বৃ ♃ হ			ম ♂ ঙ্গ			র ☉ বি			শু ♀ ক্র			বু ☿ ধ			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 4	20	9	1	19	52	9	3	19	2	22	27	8	20	39	8	11	27	8	8	23	8	13	0
11	27	9	1	19	27	9	4	53	2	19	43	8	27	47	8	20	15	8	19	14	8	24	0
18	5	10	1	19	6	9	6	36	2	17	14	9	4	54	8	29	3	9	0	27	9	5	24
25	12	10	1	18	50	9	8	15	2	15	15	9	12	2	9	7	51	9	12	8	9	18	17
Feb. 1	19	10	1	18	39	9	9	54	2	13	51	9	19	9	9	16	38	9	24	17	9	29	38
8	26	10	1	18	33	9	11	32	2	13	8	9	26	14	9	25	25	10	6	48	10	12	7
15	3	11	1	18	33	9	13	9	2	13	3	10	3	19	10	4	12	10	18	54	10	23	29
22	10	11	1	18	39	9	14	44	2	13	33	10	10	22	10	12	58	10	28	27	11	0	55
Mar. 1	17	11	1	18	50	9	16	17	2	14	34	10	17	25	10	21	43	11	2	8	11	1	24
8	24	11	1	19	7	9	17	48	2	16	4	10	24	25	11	0	27	10	28	36	10	25	45
15	1	12	1	19	28	9	19	13	2	17	56	11	1	24	11	9	10	10	22	2	10	19	55
22	8	12	1	19	54	9	20	39	2	20	9	11	8	22	11	17	53	10	18	28	10	18	26
29	15	12	1	20	25	9	21	59	2	22	39	11	15	18	11	26	34	10	19	39	10	21	23
Apr. 5	22	12	1	21	0	9	23	15	2	25	24	11	22	12	0	5	14	10	24	33	10	27	28
12	29	12	1	21	38	9	24	25	2	28	20	11	29	4	0	13	52	11	1	59	11	5	46
19	6	1	1	22	20	9	25	29	3	1	28	0	5	55	0	22	30	11	11	17	11	15	45
26	13	1	1	23	5	9	26	28	3	4	44	0	12	44	1	1	6	11	22	8	11	27	14
May 3	20	1	1	23	52	9	27	19	3	8	9	0	19	32	1	9	40	0	4	26	0	10	9
10	27	1	1	24	42	9	28	3	3	11	40	0	26	18	1	18	13	0	18	11	0	24	28
17	3	2	1	25	33	9	28	40	3	15	18	1	3	3	1	26	44	1	3	8	1	9	42
24	10	2	1	26	26	9	29	7	3	19	0	1	9	48	2	5	14	1	18	20	1	24	33
31	17	2	1	27	19	9	29	26	3	22	48	1	16	31	2	13	42	2	2	22	2	7	47
June 7	24	2	1	28	14	9	29	36	3	26	41	1	23	13	2	22	8	2	14	22	2	18	50
14	31	2	1	29	9	9	29	37	4	0	37	1	29	54	3	0	32	2	24	6	2	27	31
21	7	3	2	0	3	9	29	28	4	4	37	2	6	35	3	8	54	3	1	19	3	3	33
28	14	3	2	0	57	9	29	10	4	8	40	2	13	16	3	17	14	3	5	31	3	6	20
July 5	21	3	2	1	51	9	28	43	4	12	47	2	19	56	3	25	30	3	6	16	3	5	25
12	28	3	2	2	43	9	28	8	4	16	57	2	26	36	4	3	43	3	3	25	3	1	30
19	3	4	2	3	34	9	27	26	4	21	11	3	3	17	4	11	53	2	28	54	2	27	20
26	10	4	2	4	23	9	26	38	4	25	27	3	9	58	4	19	59	2	26	15	2	26	24
Aug. 2	17	4	2	5	10	9	25	46	4	29	46	3	16	40	4	28	0	3	28	3	3	0	22
9	24	4	2	5	54	9	24	52	5	4	8	3	23	22	5	5	55	3	4	52	3	9	11
16	31	4	2	6	36	9	23	57	5	8	33	4	0	5	5	13	44	3	15	58	3	21	35
23	6	5	2	7	14	9	23	4	5	13	0	4	6	50	5	21	26	3	29	28	4	5	27
30	13	5	2	7	48	9	22	14	5	17	31	4	13	35	5	28	59	4	13	20	4	19	6
Sept. 6	20	5	2	8	18	9	21	30	5	22	4	4	20	22	6	6	21	4	26	31	5	1	53
13	27	5	2	8	44	9	20	52	5	26	40	4	27	10	6	13	29	5	8	46	5	13	44
20	3	6	2	9	6	9	20	22	6	1	19	5	4	0	6	20	21	5	20	7	5	24	14
27	10	6	2	9	22	9	20	1	6	6	1	5	10	52	6	26	52	6	0	39	6	4	55
Oct. 4	17	6	2	9	34	9	19	49	6	10	46	5	17	45	7	2	56	6	10	22	6	14	14
11	24	6	0	9	39	9	19	47	6	15	34	5	24	39	7	8	23	6	19	2	6	22	19
18	1	7	0	9	40	9	19	55	6	20	24	6	1	36	7	13	4	6	26	6	6	28	19
25	8	7	0	9	34	9	20	12	6	25	18	6	8	34	7	16	43	7	0	5	7	0	14
Nov 1	15	7	0	9	24	9	20	39	7	0	14	6	15	34	7	19	1	6	28	22	6	25	23
8	22	7	0	9	8	9	21	15	7	5	13	6	22	35	7	19	35	6	20	15	6	16	48
15	29	7	2	8	48	9	21	59	7	10	15	6	29	37	7	18	13	6	14	25	6	14	38
22	6	8	2	8	23	9	22	51	7	15	20	7	6	41	7	15	3	6	17	5	6	20	4
29	13	8	2	7	55	9	23	50	7	20	27	7	13	46	7	10	54	6	24	58	6	29	3
Dec. 6	20	8	2	7	24	9	24	56	7	25	37	7	20	52	7	7	5	7	4	49	7	9	16
13	27	8	2	6	50	9	26	8	8	0	50	7	27	59	7	4	46	7	15	19	7	19	54
20	5	9	2	6	16	9	27	25	8	6	5	8	5	7	7	4	25	7	26	3	8	0	42
27	12	9	2	5	41	9	28	47	8	11	22	8	12	15	7	5	58	8	6	58	8	11	42
Jan. 3	19	9	2	5	7	10	0	14	8	16	42	8	19	22	7	9	5	8	18	5		—	

Stationary :—Saturn—February 12 D, Oct. 16 R ; Jupiter—June 12 R, October 10 D ; Mars—Feb. 13 D ; Venus—November 8 R, December 18 D ; Mercury—March 1 R, March 24 D, July 4 R, July 27 D, Oct. 28 R, Nov. 17 D.

Nirayana Long. of Moon (च ☽ ५) at 5-30 P.M. I.S.T.

Date	Tithi & Month		Sunday	Monday	Tuesday	Wednes	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 4	8	9	11 20 8	0 2 0	0 14 1	0 26 16	1 8 40	1 21 43	2 4 59
11	14	9	2 18 36	3 2 31	3 16 40	4 0 58	4 15 20	4 29 40	5 13 57
18	22	9	5 28 7	6 12 10	6 26 4	7 9 49	7 23 24	8 6 48	8 20 0
·25	29	9	9 2 58	9 15 41	9 28 10	10 10 26	10 22 30	11 4 24	11 16 13
Feb. 1	6	10	11 28 1	0 9 52	0 21 51	1 4 4	1 16 36	1 29 29	2 12 47
8	13	10	2 26 31	3 10 39	3 25 7	4 9 48	4 24 37	5 9 25	5 24 7
15	20	10	6 8 5	6 22 49	7 6 44	7 20 22	8 3 42	8 16 47	8 29 36
22	28	10	9 12 12	9 24 36	10 6 50	10 18 54	11 0 50	11 12 41	11 24 30
Mar. 1	4	11	0 6 18	0 18 9	1 0 8	1 12 19	1 24 47	2 7 34	2 20 46
8	11	11	3 4 25	3 18 30	4 3 1	4 17 52	5 2 57	5 18 7	6 3 12
15	19	11	6 18 3	7 2 35	7 16 43	8 0 26	8 13 44	8 26 40	9 9 18
22	26	11	9 21 39	10 3 49	10 15 49	10 27 43	11 9 34	11 21 22	0 3 11
29	3	12	0 15 2	0 26 57	1 9 0	1 21 13	2 3 40	2 16 24	2 29 29
Apr. 5	10	12	3 12 57	3 26 52	4 11 12	4 25 57	5 11 0	5 26 15	6 11 30
12	17	12	6 26 36	7 11 23	7 25 45	8 9 38	8 23 3	9 6 0	9 18 35
19	24	12	10 0 51	10 12 54	10 24 48	11 6 36	11 18 23	0 0 12	0 12 4
26	1	1	0 24 1	1 6 5	1 18 17	2 0 39	2 13 12	2 26 0	3 9 3
May 3	8	1	3 22 26	4 6 10	4 20 16	5 4 45	5 19 34	6 4 37	6 19 45
10	16	1	7 4 49	7 19 38	8 4 5	8 18 5	9 1 36	9 14 38	9 27 15
17	23	1	10 9 32	10 21 35	11 3 27	11 15 15	11 27 3	0 8 54	0 20 51
24	29	1	1 2 57	1 15 13	1 27 39	2 10 16	2 23 4	3 6 3	3 19 15
31	6	2	4 2 41	4 16 23	5 0 21	5 14 35	5 29 6	6 13 48	6 28 35
June 7	14	2	7 13 21	7 27 57	8 12 16	8 26 12	9 9 41	9 22 45	10 5 24
14	21	2	10 17 43	10 29 48	11 11 42	11 23 31	0 5 21	0 17 16	0 29 20
21	28	2	1 11 35	1 24 3	2 6 45	2 19 40	3 2 48	3 16 7	3 29 37
28	5	3	4 13 18	4 27 8	5 11 7	5 25 16	6 9 32	6 23 54	7 8 17
July 5	13	3	7 22 37	8 6 49	8 20 47	9 4 26	9 17 45	10 0 42	10 13 19
12	20	3	10 25 38	11 7 43	11 19 39	0 1 30	0 13 22	0 25 20	1 7 27
19	26	3	1 19 48	2 2 26	2 15 20	2 28 33	3 12 2	3 25 45	4 9 40
26	4	4	4 23 44	5 7 53	5 22 5	6 6 18	6 20 30	7 4 39	7 18 42
Aug. 2	11	4	8 2 36	8 16 21	8 29 52	9 13 9	9 26 9	10 8 53	10 21 22
9	18	4	11 3 36	11 15 39	11 27 34	0 9 26	0 21 18	1 3 16	1 15 24
16	25	4	1 27 46	2 10 27	2 23 28	3 6 51	3 20 36	4 4 40	4 19 0
23	2	5	5 3 31	5 18 6	6 2 40	6 17 9	7 1 27	7 15 33	7 29 24
30	10	5	8 13 0	8 26 22	9 9 29	9 22 22	10 5 1	10 17 29	10 29 45
Sept.6	17	5	11 11 52	11 23 51	0 5 44	0 17 35	0 29 27	1 11 23	1 23 29
13	23	5	2 5 49	2 18 26	3 1 26	3 14 50	3 28 40	4 12 55	4 27 32
20	1	6	5 12 24	5 27 25	6 12 24	6 27 14	7 11 48	7 26 1	8 9 52
27	8	6	8 23 21	9 6 28	9 19 18	10 1 53	10 14 15	10 26 27	11 8 32
Oct. 4	15	6	11 20 30	0 2 25	0 14 16	0 26 7	1 8 0	1 19 57	2 2 2
11	22	6	2 14 19	2 26 51	3 9 44	3 23 1	4 6 45	4 20 57	5 5 36
18	29	6	5 20 36	6 5 51	6 21 8	7 6 18	7 21 10	8 5 37	8 19 36
25	7	7	9 3 7	9 16 12	9 28 55	10 11 20	10 23 31	11 5 33	11 17 29
Nov. 1	14	7	11 28 22	0 11 14	0 23 6	1 4 59	1 16 57	1 28 59	2 11 8
8	20	7	2 23 26	3 6 52	3 18 46	4 1 55	4 15 28	4 29 28	5 13 55
15	28	7	5 28 47	6 15 56	6 29 15	7 14 30	7 29 32	8 14 11	8 28 21
22	5	8	9 12 0	9 25 11	10 7 56	10 20 20	11 2 28	11 14 26	11 26 19
29	12	8	0 8 9	0 20 0	1 1 55	1 13 54	1 26 0	2 8 12	2 20 32
Dec. 6	19	8	3 3 2	3 15 42	3 28 35	4 11 44	4 25 11	5 9 0	5 23 11
13	26	8	6 7 43	6 22 33	7 7 33	7 22 35	8 7 29	8 22 6	9 6 18
20	4	9	9 20 3	10 3 20	10 16 11	10 28 39	11 10 51	11 22 51	0 4 43
27	10	9	0 16 34	0 28 26	1 10 24	1 22 30	2 4 45	2 17 9	2 29 46
Jan. 3	17	9	3 12 35	—	—	—	—	—	—

Rahu (रा ☊-ग्रा) on 1st of each month

Jan. :	10 25 43	10 24 4	10 22 35	10 20 57
May :	10 19 21	10 17 43	10 16 8	10 14 29
Sept. :	10 12 51	10 11 15	10 9 37	10 8 1

1915 A.D. 1321-22 B.S. *Ayanamsa* 22° 40′ 26″ CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			শ	♄	ম	বৃ	♃	ই	ম	♂	ম	র	☉	ম	শু	♀	উ	বু	☿	ই		☿ Wednes.	
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	19	9	2	5	7	10	0	14	8	16	42	8	19	22	7	9	5	8	18	5	8	22	56
10	26	9	2	4	35	10	1	44	8	22	3	8	26	31	7	13	27	8	29	30	9	4	30
17	3	10	2	4	6	10	3	17	8	27	27	9	3	39	7	18	44	9	11	15	9	16	22
24	10	10	2	3	40	10	4	52	9	2	62	9	10	46	7	24	44	9	23	11	9	28	12
31	17	10	2	3	18	10	6	30	9	8	18	9	17	53	8	1	15	10	4	32	10	8	45
Feb. 7	24	10	2	3	1	10	8	8	9	13	45	9	24	58	8	8	10	10	13	6	10	14	59
14	2	11	2	2	49	10	9	49	9	19	13	10	2	3	8	15	24	10	15	10	10	13	32
21	9	11	2	2	42	10	11	30	9	24	43	10	9	6	8	22	53	10	9	40	10	6	23
28	16	11	2	2	41	10	13	11	10	0	13	10	16	9	9	0	34	10	2	47	10	1	10
Mar. 7	23	11	2	2	46	10	14	52	10	5	43	10	23	10	9	8	23	10	0	37	10	1	17
14	30	11	2	2	56	10	16	33	10	11	13	11	0	9	9	16	20	10	3	22	10	5	39
21	7	12	2	3	11	10	18	12	10	16	43	11	7	7	9	24	22	10	9	26	10	12	44
28	14	12	2	3	32	10	19	50	10	22	12	11	14	3	10	2	29	10	17	38	10	21	39
Apr. 4	21	12	2	3	57	10	21	25	11	27	41	11	20	57	10	10	40	10	27	24	11	1	59
11	28	12	2	4	27	10	22	59	11	3	9	11	27	50	10	18	54	11	8	28	11	13	36
18	5	1	2	5	1	10	24	29	11	8	35	0	4	42	10	27	11	11	20	49	11	26	30
25	12	1	2	5	38	10	25	56	11	14	0	0	11	31	11	5	29	0	4	26	0	10	39
May 2	19	1	2	6	19	10	27	19	11	19	23	0	18	19	11	13	49	0	19	11	0	25	30
9	26	1	2	7	3	10	28	38	11	24	45	0	25	6	11	22	11	1	4	13	1	10	23
16	2	2	2	7	50	10	29	52	0	0	4	1	1	51	0	0	34	1	18	4	1	23	20
23	9	2	2	8	39	11	1	1	0	5	21	1	8	35	0	8	58	1	29	38	2	3	46
30	16	2	2	9	30	11	2	3	0	10	35	1	15	18	0	17	23	2	8	28	2	11	21
June 6	23	2	2	10	22	11	3	0	0	15	47	1	22	1	0	25	49	2	14	16	2	15	43
13	30	2	2	11	15	11	3	49	0	20	56	1	28	42	1	4	17	2	16	37	2	16	30
20	5	3	2	12	10	11	4	30	0	26	1	2	5	23	1	12	45	2	15	21	2	13	55
27	12	3	2	13	4	11	5	3	1	1	4	2	12	4	1	21	14	2	11	36	2	9	55
July 4	19	3	2	13	59	11	5	28	1	6	4	2	18	44	1	29	44	2	8	13	2	7	36
11	26	3	2	14	53	11	5	44	1	11	0	2	25	25	2	8	15	2	7	56	2	9	6
18	2	4	2	15	47	11	5	50	1	15	53	3	2	5	2	16	48	2	11	54	2	14	53
25	9	4	2	16	40	11	5	46	1	20	42	3	8	46	2	25	22	2	20	2	2	24	40
Aug. 1	16	4	2	17	31	11	5	33	1	25	28	3	15	28	3	4	57	3	1	45	3	7	34
8	23	4	2	18	21	11	5	11	2	0	9	3	22	10	3	12	33	3	15	42	3	21	53
15	30	4	2	19	8	11	4	39	2	4	47	3	28	53	3	21	11	4	0	2	4	5	58
22	5	5	2	19	53	11	4	0	2	9	20	4	5	37	3	29	50	4	13	36	4	19	5
29	12	5	2	20	36	11	3	15	2	13	49	4	12	22	4	8	30	4	26	5	5	1	6
Sept. 5	19	5	2	21	14	11	2	24	2	18	13	4	19	9	4	17	11	5	7	31	5	12	6
12	26	5	2	21	50	11	1	29	2	22	31	4	25	57	4	25	53	5	17	57	5	22	7
19	2	6	2	22	21	11	0	33	2	26	45	5	2	47	5	4	36	5	27	21	6	1	1
26	9	6	2	22	48	10	29	38	3	0	52	5	9	38	5	13	19	6	5	28	6	8	24
Oct. 3	16	6	2	23	11	10	28	45	3	4	52	5	16	30	5	22	2	6	11	36	6	13	18
10	23	6	2	23	28	10	27	57	3	8	46	5	23	25	6	0	47	6	14	17	6	13	48
17	30	6	2	23	41	10	27	16	3	12	31	6	0	21	6	9	31	6	11	13	6	7	59
24	7	7	2	23	48	10	26	42	3	16	7	6	7	19	6	18	16	6	3	4	6	0	8
31	14	7	2	23	49	10	26	17	3	19	34	6	14	18	6	27	0	5	28	35	5	29	22
Nov. 7	21	7	2	23	45	10	26	1	3	22	48	6	21	19	7	5	45	6	2	30	6	5	55
14	28	7	2	23	36	10	25	56	3	25	49	6	28	21	7	14	30	6	11	19	6	15	44
21	5	8	2	23	21	10	26	0	3	28	35	7	5	25	7	23	14	6	21	51	6	26	31
28	12	8	2	23	2	10	26	15	4	1	4	7	12	30	8	1	59	7	2	47	7	7	30
Dec. 5	19	8	2	22	38	10	26	39	4	3	11	7	19	35	8	10	43	7	13	46	7	18	28
12	26	8	2	22	10	10	27	13	4	4	55	7	26	42	8	19	27	7	24	45	7	29	28
19	3	9	2	21	39	10	27	55	4	6	12	8	3	50	8	28	10	8	5	47	8	10	33
26	10	9	2	21	6	10	28	46	4	6	57	8	10	57	9	6	53	8	16	57	8	21	48
Jan. 2	17	9	2	20	31	10	29	44	4	7	7	8	18	5	9	15	36	8	28	18		–	

Stationary :—Saturn—February 27 D, October 30 R; Jupiter—July 20 R, November 15 D; Mars—; Venus—; Mercury—Feb. 13R, March 6 D, June 14 R, July 8 D, October 10 R, October 31 D.

Date	*Tithi & Month*		*Nirayana* Long. of Moon (च ☽ ऽ) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	17	9	3	12	35	3	25	33	4	8	44	4	22	6	5	5	41	5	19	30	6	3	32
10	24	9	6	17	48	7	2	14	7	16	47	8	1	22	8	15	51	9	0	8	9	14	7
17	2	10	9	27	46	10	11	2	10	23	55	11	6	27	11	18	43	0	0	46	0	12	41
24	9	10	0	24	32	1	6	26	1	18	26	2	0	36	2	12	58	2	25	35	3	8	28
31	15	10	3	21	36	4	4	59	4	18	35	5	2	23	5	16	20	6	0	23	6	14	32
Feb. 7	23	10	6	28	43	7	12	55	7	27	5	8	11	11	8	25	9	9	8	58	9	22	32
14	30	10	10	5	51	10	18	54	11	1	40	11	14	11	11	26	26	0	8	30	0	20	27
21	7	11	1	2	19	1	14	13	1	26	12	2	8	21	2	20	45	3	3	27	3	16	29
28	14	11	3	29	53	4	13	37	4	27	40	5	11	57	5	26	23	6	10	53	6	25	21
Mar. 7	21	11	7	9	43	7	23	55	8	7	54	8	21	41	9	5	15	9	18	37	10	1	45
14	29	11	10	14	41	10	27	25	11	9	57	11	22	18	0	4	29	0	16	30	0	28	26
21	5	12	1	10	18	1	22	10	2	4	7	2	16	14	2	28	35	3	11	14	3	24	17
28	12	12	4	7	46	4	21	41	5	6	0	5	20	40	6	5	34	6	20	32	7	5	25
Apr. 4	20	12	7	20	6	8	4	29	8	18	32	9	2	14	9	15	36	9	28	40	10	11	29
11	27	12	10	24	6	11	6	32	11	18	49	0	0	58	0	13	0	0	24	58	1	6	51
18	4	1	1	18	42	2	0	34	2	12	30	2	24	34	3	6	51	3	19	26	4	2	24
25	11	1	4	15	49	4	29	43	5	14	6	5	28	54	6	14	2	6	29	18	7	14	31
May 2	18	1	7	29	32	8	14	12	8	28	26	9	12	13	9	25	34	10	8	33	10	21	14
9	26	1	11	3	39	11	15	53	11	27	58	0	9	58	0	21	54	1	3	47	1	16	38
16	2	1	1	27	30	2	9	24	2	21	23	3	3	29	3	15	47	3	28	20	4	11	14
23	9	1	4	24	33	5	8	19	5	22	35	6	7	18	6	22	22	7	7	40	7	23	0
30	17	1	8	8	10	8	23	0	9	7	25	9	21	22	10	4	50	10	17	52	11	0	32
June 6	24	1	11	12	54	11	25	3	0	7	4	0	18	58	1	0	50	1	12	42	1	24	35
13	1	2	2	6	30	2	18	30	3	0	36	3	12	50	3	25	15	4	7	54	4	20	51
20	8	2	5	4	8	5	17	48	6	1	54	6	16	23	7	1	13	7	16	17	8	1	25
27	15	2	8	16	29	9	1	18	9	15	45	9	29	47	10	13	20	10	26	28	11	9	12
July 4	23	2	11	21	37	0	3	47	0	15	47	0	27	41	1	9	32	1	21	25	2	3	21
11	29	2	2	15	23	2	27	32	3	9	50	3	22	19	4	4	59	4	17	53	5	1	1
18	6	3	5	14	25	5	28	7	6	12	6	6	26	23	7	10	54	7	25	35	8	10	21
25	14	3	8	24	4	9	9	37	9	23	54	10	7	51	10	21	24	11	4	34	11	17	22
Aug. 1	21	3	11	29	50	0	12	2	0	24	4	1	5	58	1	17	50	1	29	44	2	11	44
8	28	3	2	23	53	3	6	13	3	18	45	4	1	32	4	14	34	4	27	50	5	11	19
15	5	4	5	25	1	6	8	54	6	22	57	7	7	8	7	21	25	8	5	45	8	20	4
22	12	4	9	4	20	9	18	27	10	2	23	10	16	4	10	29	27	11	12	32	11	25	18
29	20	4	0	7	46	0	19	59	1	2	1	1	13	56	1	25	48	2	7	43	2	19	44
Sept. 5	26	4	3	1	57	3	14	24	3	27	9	4	10	14	4	23	37	5	7	19	5	21	16
12	3	5	6	5	24	6	19	39	7	3	56	7	18	12	8	2	24	8	16	30	9	0	29
19	11	5	9	14	19	9	28	0	10	11	30	10	24	48	11	7	54	11	20	45	0	3	23
26	18	5	0	15	46	0	27	57	1	9	57	1	21	51	2	3	41	2	15	34	2	27	34
Oct. 3	25	5	3	9	46	3	22	15	4	5	6	4	18	20	5	2	0	5	16	3	6	0	26
10	2	6	6	15	3	6	29	45	7	14	26	7	28	58	8	13	17	8	27	22	9	11	11
17	9	6	9	24	44	10	8	4	10	21	12	11	4	8	11	16	53	11	29	28	0	11	52
24	17	6	0	24	7	1	6	11	1	18	8	1	29	59	2	11	48	2	23	38	3	5	35
31	23	6	3	17	44	4	0	10	4	12	58	4	26	12	5	9	56	5	24	9	6	8	47
Nov. 7	30	6	6	23	44	7	8	50	7	23	55	8	8	49	8	23	26	9	7	41	9	21	33
14	8	7	10	5	3	10	18	14	11	1	8	11	13	48	11	26	17	0	8	36	0	20	47
21	15	7	1	2	51	1	14	49	1	26	41	2	8	31	2	20	19	3	2	10	3	14	6
28	21	7	3	26	13	4	8	35	4	21	18	5	4	26	5	18	3	6	2	10	6	16	46
Dec. 5	29	7	7	1	45	7	17	0	8	2	18	8	17	30	9	2	25	9	16	57	10	1	2
12	6	8	10	14	41	10	27	54	11	10	46	11	23	20	0	5	40	0	17	49	0	29	50
19	13	8	1	11	46	1	23	38	2	5	28	2	17	19	2	29	11	3	11	6	3	23	9
26	20	8	4	5	20	4	17	45	5	0	28	5	13	31	5	26	58	6	10	53	6	25	12
Jan. 2	27	8	7	9	58		—			—			—			—			—			—	

Rahu (रा ८ श्री) on 1st of each month

Jan. :	10 6 23	10 4 44	10 3 14	10 1 36
May :	10 0 1	9 28 22	9 26 47	9 25 8
Sept. :	9 23 30	9 21 55	9 20 16	9 18 41

1916 A.D. 1322-23 B.S. *Ayanamsa* 22° 41' 21" CONDENSED.

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
		শ ♄ শ	বৃ ♃ বৃ	ম ♂ ম	র ☉ র	শু ♀ শু	বু ☿ বু	☿ Wednes
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 2	17 9	2 20 31	10 29 44	4 7 7	8 18 5	9 15 36	8 28 18	9 3 11
9	24 9	2 19 57	11 0 49	4 6 39	8 25 14	9 24 16	9 9 38	9 14 21
16	2 10	2 19 23	11 2 1	4 5 31	9 2 22	10 2 56	9 20 12	9 24 0
23	9 10	2 18 50	11 3 17	4 3 46	9 9 29	10 11 33	9 27 43	9 29 1
30	16 10	2 18 21	11 4 39	4 1 28	9 16 36	10 20 8	9 28 12	9 25 46
Feb. 6	23 10	2 17 54	11 6 5	3 28 48	9 23 42	10 28 40	9 21 7	9 17 41
13	1 11	2 17 32	11 7 35	3 26 0	10 0 47	11 7 9	9 14 35	9 13 35
20	8 11	2 17 14	11 9 8	3 23 21	10 7 51	11 15 34	9 13 57	9 15 16
27	15 11	2 17 1	11 10 44	3 21 4	10 14 54	11 23 55	9 18 5	9 20 48
Mar. 5	22 11	2 16 53	11 12 20	3 19 17	10 21 54	0 2 9	9 25 3	9 28 38
12	29 11	2 16 51	11 14 0	3 18 9	10 28 54	0 10 19	10 3 50	10 8 1
19	6 12	2 16 54	11 15 40	3 17 39	11 5 52	0 18 21	10 13 55	10 18 34
26	13 12	2 17 3	11 17 21	3 17 46	11 12 48	0 26 15	10.25 6	11 0 14
Apr. 2	20 12	2 17 17	11 19 3	3 18 27	11 19 43	1 3 59	11 7 23	11 13 0
9	27 12	2 17 37	11 20 44	3 19 37	11 26 36	1 11 31	11 20 50	11 26 55
16	3 1	2 18 1	11 22 25	3 21 14	0 3 28	1 18 50	0 5 17	0 11 39
23	10 1	2 18 29	11 24 5	3 23 13	0 10 17	1 25 50	0 20 3	0 26 6
30	17 1	2 19 2	11 25 44	3 25 31	0 17 6	2 2 30	1 3 35	1 8 39
May 7	24 1	2 19 39	11 27 21	3 28 6	0 23 53	2 8 43	1 14 31	1 18 12
14	1 2	2 20 19	11 28 56	4 0 56	1 0 38	2 14 21	1 22 8	1 24 17
21	8 2	2 21 2	0 0 28	4 3 58	1 7 23	2 19 15	1 26 4	1 26 34
28	15 2	2 21 48	0 1 57	4 7 10	1 14 6	2 23 12	1 26 9	1 25 8
June 4	22 2	2 22 36	0 3 22	4 10 33	1 20 48	2 25 54	1 23 10	1 21 30
11	29 2	2 23 26	0 4 44	4 14 4	1 27 30	2 27 1	1 19 30	1 18 29
18	4 3	2 24 18	0 6 1	4 17 42	2 4 11	2 26 16	1 18 2	1 18 29
25	11 3	2 25 11	0 7 13	4 21 28	2 10 52	2 23 38	1 20 11	1 22 15
July 2	18 3	2 26 5	0 8 19	4 25 20	2 17 32	2 19 38	1 26 2	1 29 37
9	25 3	2 26 59	0 9 19	4 29 17	2 24 13	2 15 23	2 5 18	2 10 14
16	32 3	2 27 54	0 10 13	5 3 20	3 0 53	2 12 6	2 17 34	2 23 32
23	7 4	2 28 48	0 10 59	5 7 28	3 7 34	2 10 35	3 1 52	3 8 13
30	14 4	2 29 42	0 11 38	5 11 41	3 14 15	2 10 59	3 16 36	3 22 42
Aug. 6	21 4	3 0 35	0 12 8	5 15 59	3 20 58	2 13 4	4 0 30	4 6 6
13	28 4	3 1 26	0 12 29	5 20 20	3 27 40	2 16 31	4 13 12	4 18 16
20	4 5	3 2 16	0 12 40	5 24 46	4 4 24	2 21 2	4 24 41	4 29 14
27	11 5	3 3 4	0 12 42	5 29 17	4 11 9	2 26 22	5 4 59	5 9 2
Sept. 3	18 5	3 3 50	0 12 34	6 3 51	4 17 56	3 2 20	5 14 2	5 17 27
10	25 5	3 4 33	0 12 16	6 8 29	4 24 44	3 8 47	5 21 30	5 24 3
17	1 6	3 5 12	0 11 50	6 13 11	5 1 33	3 15 39	5 26 36	5 27 44
24	8 6	3 5 48	0 11 14	6 17 56	5 8 24	3 22 50	5 27 52	5 26 45
Oct. 1	15 6	3 6 21	0 10 31	6 22 46	5 15 16	4 0 17	5 23 34	5 20 16
8	22 6	3 6 49	0 9 42	6 27 39	5 22 10	4 7 57	5 15 50	5 13 33
15	29 6	3 7 12	0 8 48	7 2 35	5 29 6	4 15 48	5 12 53	5 14 14
22	5 7	3 7 30	0 7 51	7 7 35	6 6 3	4 23 49	5 18 0	5 21 50
29	12 7	3 7 44	0 6 54	7 12 38	6 13 3	5 1 58	5 27 43	6 2 27
Nov. 5	19 7	3 7 51	0 5 59	7 17 45	6 20 3	5 10 13	6 8 55	6 13 48
12	26 7	3 7 54	0 5 8	7 22 54	6 27 5	5 18 35	6 20 17	6 25 8
19	4 8	3 7 51	0 4 23	7 28 7	7 4 9	5 27 1	7 1 31	7 8 17
26	11 8	3 7 43	0 3 45	8 3 22	7 11 13	6 5 31	7 12 35	7 17 18
Dec. 3	18 8	3 7 29	0 3 15	8 8 40	7 18 19	6 14 5	7 23 33	7 28 15
10	25 8	3 7 10	0 2 55	8 14 0	7 25 26	7 22 41	8 4 30	8 9 11
17	2 9	3 6 47	0 2 45	8 19 23	8 2 33	7 1 20	8 15 26	8 20 4
24	9 9	3 6 20	0 2 45	8 24 48	8 9 41	7 10 0	8 26 9	9 0 31
31	16 9	3 5 49	0 2 55	9 0 15	8 16 49	7 18 42	9 5 52	9 9 14
Jan. 7	23 9	3 5 17	0 3 15	9 5 43	8 23 57	7 27 24	9 12 16	—

Stationary :—Saturn—March 12 D, Nov. 12 R; Jupiter—August 25 R, Dec. 21 D; Mars—Jan. 1 R, March 22 D; Venus—June 12 R, Jnly 25 D; Mercury—Jan. 27 R, Feb. 18 D, May 25 R, June 18 D, Sept. 23 R, Oct. 14 D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M I.S.T						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 2	27	8	7 9 58	7 25 1	8 10 13	8 25 25	9 10 20	9 25 9	10 9 27
9	5	9	10 23 18	11 6 42	11 19 41	0 2 18	0 14 37	0 26 43	1 8 39
16	12	9	1 20 30	2 2 20	2 14 10	2 26 4	3 8 3	3 20 9	4 2 24
23	18	9	4 14 49	4 27 27	5 10 19	5 23 28	6 6 54	6 20 40	7 4 45
30	25	9	7 19 9	8 3 48	8 18 37	9 3 30	9 18 19	10 2 57	10 17 16
Feb. 6	3	10	11 1 12	11 14 44	11 27 50	0 10 33	0 22 56	1 5 4	1 17 0
13	10	10	1 28 51	2 10 39	2 22 31	3 4 29	3 16 36	3 28 55	4 11 26
20	16	10	4 24 12	5 17 11	5 20 25	6 3 51	6 17 29	7 1 18	7 15 18
27	24	10	7 29 28	8 13 45	8 28 8	9 12 33	9 26 56	10 11 12	10 25 16
Mar. 5	1	11	11 9 3	11 22 31	0 5 38	0 18 23	1 0 49	1 12 59	1 24 57
12	8	11	2 6 47	2 18 36	3 0 28	3 12 29	3 24 42	4 7 11	4 19 58
19	15	11	5 3 4	5 16 28	6 0 8	6 14 0	6 28 1	7 12 7	7 26 17
26	22	11	8 10 24	8 24 31	9 8 36	9 22 37	10 6 33	10 20 22	11 4 1
Apr. 2	30	11	11 17 29	0 0 42	0 13 38	0 26 17	1 8 40	1 20 48	2 2 46
9	7	12	2 14 36	2 26 25	3 8 17	3 20 18	4 2 34	4 15 8	4 28 4
16	13	12	5 11 25	5 25 8	6 9 11	6 23 31	7 7 59	7 22 30	8 6 57
23	21	12	8 21 18	9 5 28	9 19 27	10 3 16	10 16 53	11 0 19	11 13 35
30	28	12	11 26 39	0 9 32	0 22 11	1 4 38	1 16 52	1 28 55	2 10 49
May 7	5	1	2 22 37	3 4 25	3 16 16	3 28 16	4 10 31	4 23 5	5 6 4
14	12	1	5 19 29	6 3 21	6 17 38	7 2 16	7 17 7	8 2 1	8 16 52
21	19	1	9 1 32	9 15 56	10 0 2	10 13 49	10 27 19	11 10 33	11 23 32
28	27	1	0 6 18	0 18 51	1 1 14	1 13 26	1 25 29	2 7 25	2 19 15
June 4	3	2	3 1 2	3 12 49	3 24 40	4 6 40	4 18 54	5 1 26	5 14 22
11	10	2	5 27 44	6 11 35	6 25 53	7 10 36	7 25 36	8 10 45	8 25 53
18	18	2	9 10 51	9 25 32	10 9 52	10 23 48	11 7 21	11 20 31	0 3 23
25	25	2	0 15 57	0 28 18	1 10 28	1 22 29	2 4 23	2 16 12	2 28 0
July 2	2	3	3 9 47	3 21 36	4 3 31	4 15 35	4 27 52	5 10 25	5 23 18
9	9	3	6 6 35	6 20 18	7 4 28	7 19 2	8 3 57	8 19 5	9 4 17
16	16	3	9 19 24	10 4 17	10 18 50	11 2 57	11 16 38	11 29 53	0 12 44
23	24	3	0 25 15	1 7 30	1 19 33	2 1 27	2 13 15	2 25 2	3 6 50
30	30	3	3 18 41	4 0 38	4 12 42	4 24 55	5 7 21	5 20 1	6 2 57
Aug. 6	7	4	6 16 13	6 29 49	7 13 47	7 28 6	8 12 44	8 27 38	9 12 39
13	15	4	9 27 40	10 12 33	10 27 9	11 11 23	11 25 11	0 8 32	0 21 27
20	22	4	1 3 59	1 16 13	1 28 13	2 10 5	2 21 52	3 3 39	3 15 30
27	29	4	3 27 28	4 9 35	4 21 53	5 4 22	5 17 4	5 29 59	6 13 8
Sept 3	6	5	6 26 30	7 10 6	7 23 57	8 8 3	8 22 23	9 6 54	9 21 34
10	14	5	10 6 16	10 20 54	11 5 20	11 19 29	0 3 16	0 16 38	0 29 35
17	21	5	1 12 10	1 24 25	2 6 26	2 18 17	3 0 5	3 11 53	3 23 48
24	27	5	4 5 53	4 18 11	5 0 44	5 13 32	5 26 36	6 9 53	6 23 23
Oct. 1	4	6	7 7 2	7 20 50	8 4 45	8 18 46	9 2 53	9 17 5	10 1 21
8	12	6	10 15 57	10 29 50	11 13 55	11 27 47	0 11 22	0 24 36	1 7 30
15	19	6	1 20 2	2 2 17	2 14 18	2 26 9	3 7 57	3 19 47	4 1 44
22	26	6	4 13 53	4 26 18	5 9 2	5 22 7	6 5 31	6 19 13	7 3 8
29	3	7	7 17 13	8 1 23	8 15 34	8 29 44	9 13 52	9 27 55	10 11 54
Nov. 5	10	7	10 25 48	11 9 35	11 23 14	0 6 41	0 19 54	1 2 52	1 15 34
12	18	7	1 27 59	2 10 10	2 22 8	3 3 59	3 15 46	3 27 35	4 9 31
19	24	7	4 21 40	5 4 6	5 16 54	6 0 6	6 13 42	6 27 41	7 11 58
26	1	8	7 26 29	8 11 7	8 25 44	9 10 15	9 24 37	10 8 46	10 22 42
Dec. 3	9	8	11 6 24	11 19 53	0 3 9	0 16 12	0 29 2	1 11 39	1 24 4
10	16	8	2 6 17	2 18 20	3 0 15	3 12 4	3 23 51	4 5 40	4 17 35
17	23	8	4 29 41	5 12 4	5 24 47	6 7 55	6 21 30	7 5 32	7 19 59
24	30	8	8 4 45	8 19 43	9 4 45	9 19 42	10 4 27	10 18 54	11 3 1
31	7	9	11 16 45	0 0 9	0 13 13	0 25 59	1 8 31	1 20 50	2 2 59
Jan. 7	14	9	2 15 0	—	—	—	—	—	—

Rahu (रा ☊ वा) on 1st of each month					
	Jan. :	9 17 2	9 15 24	9 13 52	9 12 12
	May :	9 10 37	9 8 58	9 7 23	9 5 44
	Sept. :	9 4 6	9 2 31	9 0 52	8 29 17

1917 A.D. 1323-24 B.S. *Ayanamsa* 22° 42′ 14″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 7	23	9	3	5	17	0	3	15	9	5	43	8	23	57	7	27	24	9	12	16	9	12	58
14	1	10	3	4	43	0	3	45	9	11	12	9	1	5	8	6	8	9	11	14	9	8	9
21	8	10	3	4	8	0	4	24	9	16	43	9	8	12	8	14	52	9	3	3	8	29	48
28	15	10	3	3	34	0	5	11	9	22	14	9	15	20	8	23	36	8	27	19	8	26	58
Feb. 4	22	10	3	3	1	0	6	6	9	27	46	9	22	26	9	2	20	8	28	11	9	0	4
11	29	10	3	2	31	0	7	7	10	3	18	9	29	31	9	11	4	9	3	30	9	6	36
18	6	11	3	2	4	0	8	15	10	8	50	10	6	35	9	19	48	9	11	15	9	15	4
25	13	11	3	1	41	0	9	29	10	14	22	10	13	38	9	28	32	9	20	29	9	24	47
Mar. 4	20	11	3	1	23	0	10	48	10	19	53	10	20	39	10	7	15	10	0	46	10	5	28
11	27	11	3	1	9	0	12	11	10	25	24	10	27	39	10	15	58	10	12	0	10	17	6
18	5	12	3	1	0	0	13	38	11	0	53	11	4	37	10	24	41	10	24	10	10	29	42
25	12	12	3	0	57	0	15	8	11	6	21	11	11	34	11	3	23	11	7	21	11	13	18
Apr. 1	19	12	3	1	0	0	16	41	11	11	47	11	18	29	11	12	4	11	21	27	11	27	39
8	26	12	3	1	7	0	18	17	11	17	12	11	25	23	11	20	45	0	5	50	0	11	44
15	2	1	3	1	20	0	19	54	11	22	34	0	2	14	11	29	25	0	18	57	0	23	44
22	9	1	3	1	38	0	21	32	11	27	55	0	9	5	0	8	4	0	29	3	1	2	10
29	16	1	3	2	1	0	23	11	0	3	13	0	15	53	0	16	43	1	5	7	1	6	22
May 6	23	1	3	2	28	0	24	51	0	8	29	0	22	40	0	25	21	1	6	46	1	6	12
13	30	1	3	3	0	0	26	31	0	13	43	0	29	46	1	3	58	1	4	31	1	2	51
20	6	2	3	3	35	0	28	10	0	18	54	1	6	11	1	12	35	1	0	34	0	29	9
27	13	2	3	4	14	0	29	49	0	24	2	1	12	54	1	21	11	0	28	2	0	27	56
June 3	20	2	6	4	56	1	1	26	0	29	8	1	19	37	1	29	47	0	28	49	1	0	15
10	27	2	3	5	41	1	3	2	1	4	11	1	26	18	2	8	22	1	3	8	1	5	57
17	3	3	3	6	28	1	4	36	1	9	11	2	3	0	2	16	57	1	10	33	1	14	36
24	10	3	3	7	18	1	6	8	1	14	8	2	9	41	2	25	31	1	20	44	1	25	53
July 1	17	3	3	8	9	1	7	37	1	19	3	2	16	21	3	4	5	2	3	26	2	9	30
8	24	3	3	9	1	1	9	3	1	23	54	2	23	1	3	12	38	2	17	59	2	24	28
15	31	3	3	9	35	1	10	25	1	28	43	2	29	42	3	21	11	3	3	1	3	9	15
22	6	4	3	10	49	1	11	43	2	3	29	3	6	23	3	29	43	3	17	13	3	22	54
29	13	4	3	11	43	1	12	57	2	8	12	3	13	4	4	8	14	4	0	5	4	5	10
Aug. 5	20	4	3	12	37	1	14	5	2	12	52	3	19	46	4	16	44	4	11	33	4	16	3
12	27	4	3	13	31	1	15	7	2	17	30	3	26	29	4	25	13	4	21	40	4	25	33
19	3	5	3	14	23	1	16	3	2	22	4	4	3	13	5	3	40	5	0	16	5	3	24
26	10	5	3	15	15	1	16	51	2	26	35	4	9	57	5	12	7	5	6	57	5	9	3
Sept. 2	17	5	3	16	5	1	17	32	3	1	3	4	16	43	5	20	32	5	10	53	5	11	22
9	24	5	3	16	54	1	18	5	3	5	28	4	23	31	5	28	54	5	10	38	5	8	56
16	31	5	3	17	39	1	18	29	3	9	49	5	0	20	6	7	16	5	5	22	5	2	12
23	7	6	3	18	23	1	18	44	3	14	7	5	7	11	6	15	35	4	28	32	4	27	1
30	14	6	3	19	3	1	18	49	3	18	21	5	14	3	6	23	51	4	27	17	4	29	12
Oct. 7	21	6	3	19	40	1	18	44	3	22	31	5	20	56	7	2	4	5	3	32	5	7	45
14	28	6	3	20	12	1	18	30	3	26	37	5	27	52	7	10	14	5	14	6	5	19	7
21	4	7	3	20	41	1	18	6	4	0	39	6	4	49	7	18	20	5	25	56	6	1	3
28	11	7	3	21	5	1	17	33	4	4	35	6	11	48	7	26	22	6	7	46	6	12	45
Nov. 4	18	7	3	21	24	1	16	51	4	8	25	6	18	46	8	4	17	6	19	16	6	24	6
11	25	7	3	21	38	1	16	4	4	12	9	6	25	50	8	12	4	7	0	26	7	5	8
18	2	8	3	21	47	1	15	11	4	15	46	7	2	53	8	19	42	7	11	21	7	15	58
25	9	8	3	21	50	1	14	14	4	19	15	7	9	58	8	27	7	7	22	4	7	26	37
Dec. 2	16	8	3	21	48	1	13	17	4	22	35	7	17	3	9	4	17	8	2	36	8	7	1
9	23	8	3	21	41	1	12	21	4	25	44	7	24	10	9	11	6	8	12	42	8	16	44
16	1	9	3	21	28	1	11	28	4	28	42	8	1	17	9	17	29	8	21	32	8	24	26
23	8	9	3	21	9	1	10	40	5	1	25	8	8	25	9	23	17	8	26	45	8	26	51
30	15	9	3	20	47	1	10	0	5	3	53	8	15	33	9	28	17	8	24	18	8	20	42
Jan. 6	22	9	3	20	19	1	9	26	5	6	0	8	22	40	10	2	15	8	15	27		—	

Stationary :—Saturn—March 26 D, November 26 R ; Jupiter—Oct. 1 R, ; Mars—; Venus—; Mercury—Jan. 10 R, Jan. 31 D, May 6 R, May 29 D, September 6 R, September. 28 D, December 25 R.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ 5) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 7	14	9	2	15	0	2	26	55	3	8	45	3	20	33	4	2	21	4	14	13	4	26	10
14	21	9	5	8	17	5	20	37	6	3	16	6	16	16	6	29	41	7	13	32	7	27	51
21	28	9	8	12	34	8	27	36	9	12	49	9	28	3	10	13	8	10	27	55	11	12	19
28	6	10	11	26	16	0	9	45	0	22	49	1	5	31	1	17	54	2	0	2	2	12	1
Feb. 4	13	10	2	23	53	3	5	42	3	17	29	3	29	19	4	11	11	4	23	9	5	5	14
11	19	10	5	17	28	5	29	53	6	12	33	6	25	29	7	8	46	7	22	25	8	6	28
18	26	10	8	20	55	9	5	43	9	20	47	10	5	58	10	21	7	11	6	4	11	20	39
25	4	11	0	4	48	0	18	27	1	1	38	1	14	23	1	26	46	2	8	52	2	20	47
Mar. 4	11	11	3	2	35	3	14	22	3	26	10	4	8	3	4	20	3	5	2	11	5	14	29
11	18	11	5	26	57	6	9	35	6	22	26	7	5	29	7	18	47	8	2	21	8	16	12
18	25	11	9	0	22	9	14	50	9	29	33	10	14	26	10	29	20	11	14	7	11	28	39
25	3	12	0	12	48	0	26	31	1	9	46	1	22	35	2	5	1	2	17	9	2	29	6
Apr. 1	9	12	3	10	55	3	22	42	4	4	33	4	16	31	4	28	38	5	10	58	5	23	31
8	16	12	6	6	16	6	19	15	7	2	24	7	15	45	7	29	16	8	12	57	8	26	49
15	23	12	9	10	52	9	25	5	10	9	27	10	23	55	11	8	24	11	22	48	0	7	0
22	1	1	0	20	55	1	4	29	1	17	39	2	0	27	2	12	54	2	25	4	3	7	2
29	8	1	3	18	53	4	0	43	4	12	36	4	24	37	5	6	51	5	19	20	6	2	5
May. 6	14	1	6	15	8	6	28	27	7	11	59	7	25	44	8	9	38	8	23	38	9	7	43
13	22	1	9	21	51	10	6	1	10	20	11	11	4	19	11	18	23	0	2	20	0	16	5
20	29	1	0	29	36	1	12	51	1	25	47	2	8	26	2	20	48	3	2	56	3	14	54
27	6	2	3	26	46	4	8	36	4	20	31	5	2	33	5	14	49	5	27	22	6	10	14
June 3	13	2	6	23	28	7	7	2	7	20	55	8	5	4	8	19	24	9	3	50	9	18	17
10	20	2	10	2	42	10	17	0	11	1	9	11	15	8	11	28	54	0	12	28	0	25	48
17	28	2	1	8	54	1	21	46	2	4	24	2	16	49	2	29	2	3	11	4	3	22	59
24	5	3	4	4	50	4	16	40	4	28	34	5	10	36	5	22	51	6	5	23	6	18	15
July 1	11	3	7	1	31	7	15	12	7	29	16	8	13	42	8	28	23	9	13	14	9	28	7
8	19	3	10	12	54	10	27	29	11	11	47	11	25	46	0	9	26	0	22	46	1	5	48
15	27	3	1	18	34	2	1	6	2	13	27	2	25	37	3	7	39	3	19	35	4	1	27
22	3	4	4	13	17	4	25	7	5	7	2	5	19	3	6	1	16	6	13	44	6	26	32
29	10	4	7	9	43	7	23	21	8	7	25	8	21	55	9	6	47	9	21	53	10	7	5
Aug. 5	17	4	10	22	13	11	7	37	11	21	40	0	5	47	0	19	29	1	2	45	1	15	38
12	25	4	1	28	13	2	10	32	2	22	40	3	4	39	3	16	33	3	28	24	4	10	14
19	2	5	4	22	5	5	3	58	5	15	56	5	28	0	6	10	14	6	22	42	7	5	26
26	8	5	7	18	30	8	1	59	8	15	55	9	0	17	9	15	4	10	0	11	10	15	28
Sept. 2	16	5	11	0	46	11	15	52	0	0	37	0	14	56	0	28	44	1	12	4	1	24	57
9	24	5	2	7	28	2	19	42	3	1	44	3	13	37	3	25	27	4	7	17	4	19	8
16	30	5	5	1	2	5	13	2	5	25	7	6	7	20	6	19	42	7	2	15	7	15	1
23	7	5	7	28	4	8	11	27	8	25	12	9	9	21	9	23	53	10	8	46	10	23	52
30	13	5	11	9	2	11	24	5	0	8	52	0	23	15	1	7	10	1	20	35	2	3	33
Oct. 7	21	5	2	16	6	2	28	21	3	10	22	3	22	15	4	4	5	4	15	55	4	27	49
14	28	5	5	9	49	5	21	58	6	4	15	6	16	42	6	29	19	7	12	7	7	25	5
21	5	6	8	8	17	8	21	43	9	5	24	9	19	23	10	3	40	10	18	11	11	2	54
28	13	6	11	17	41	0	2	26	0	16	59	1	1	13	1	15	5	1	28	30	2	11	30
Nov. 4	20	6	2	24	8	3	6	26	3	18	30	4	0	25	4	12	16	4	24	8	5	6	5
11	27	6	5	18	10	6	0	27	6	12	56	6	25	39	7	8	36	7	21	45	8	5	6
18	4	7	8	18	38	9	2	20	9	16	11	10	0	12	10	14	21	10	28	36	11	12	55
25	12	7	11	27	14	0	11	29	0	25	35	1	9	28	1	23	3	2	6	19	2	19	15
Dec. 2	19	7	3	1	51	3	14	11	3	26	17	4	8	14	4	20	6	5	1	59	5	13	57
9	25	7	5	26	4	6	8	24	6	21	1	7	3	56	7	17	9	8	0	49	8	14	28
16	2	8	8	28	28	9	12	38	9	26	52	10	11	9	10	25	24	11	9	36	11	23	41
23	10	8	0	7	37	0	21	25	1	5	1	1	18	26	2	1	37	2	14	34	2	27	16
30	17	8	3	9	45	3	22	1	4	4	5	4	16	2	4	27	55	5	9	47	5	21	43
Jan. 6	24	8	6	3	48		—			—			—			—			—			—	

Rahu (रा ☊ रा) on 1st of each month												
Jan. :	8	27	38	8	26	0	8	24	31	8	22	52
May :	8	21	17	8	19	39	8	18	3	8	16	25
Sept. :	8	14	46	8	13	11	8	11	33	8	9	57

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T 'on Sundays																				
			শ ♄ ন			বৃ ♃ হ			ম ♂ ঙ্গ			র ☉ বি			শু ♀ ক্র			বু ☿ ধ			☿ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 6	22	9	3	20	19	1	9	26	5	6	0	8	22	40	10	2	15	8	15	27	8	12	30
13	29	9	3	19	50	1	9	3	5	7	47	8	29	48	10	4	53	8	10	47	8	11	5
20	7	10	3	19	18	1	8	49	5	9	8	9	6	56	10	5	48	8	13	5	8	15	28
27	14	10	3	18	44	1	8	45	5	10	1	9	14	3	10	4	43	8	19	26	8	22	52
Feb. 3	21	10	3	18	9	1	8	52	5	10	21	9	21	9	10	1	43	8	27	51	9	1	51
10	28	10	3	17	35	1	9	8	5	10	5	9	28	14	9	27	32	9	7	27	9	11	50
17	5	11	3	17	3	1	9	34	5	9	10	10	5	19	9	23	30	9	17	54	9	22	36
24	12	11	3	16	32	1	10	8	5	7	38	10	12	22	9	20	47	9	29	6	10	4	9
Mar. 3	19	11	3	16	5	1	10	51	5	5	32	10	19	23	9	20	2	10	11	7	10	16	32
10	26	11	3	15	41	1	11	42	5	3	1	10	26	24	9	21	12	10	24	0	10	29	47
17	3	12	3	15	22	1	12	39	5	0	17	11	3	22	9	23	59	11	7	41	11	13	41
24	10	12	3	15	8	1	13	43	4	27	36	11	10	19	9	28	0	11	21	36	11	27	17
31	17	12	3	14	58	1	14	53	4	25	12	11	17	15	10	2	59	0	4	11	0	8	37
Apr. 7	24	12	3	14	54	1	16	7	4	23	17	11	24	8	10	8	42	0	13	16	0	15	43
14	1	1	3	14	55	1	17	26	4	21	56	0	1	0	10	14	57	0	17	28	0	17	40
21	8	1	3	15	2	1	18	49	4	21	15	0	7	51	10	21	37	0	16	36	0	15	2
28	15	1	3	15	13	1	20	15	4	21	11	0	14	40	10	28	36	0	12	27	0	10	32
May 5	22	1	3	15	30	1	21	44	4	21	42	0	21	27	11	5	51	0	8	35	0	7	49
12	29	1	3	15	52	1	23	16	4	22	46	0	28	13	11	13	17	0	7	51	0	8	40
19	5	2	3	16	18	1	24	49	4	24	18	1	4	58	11	20	53	0	10	46	0	13	1
26	12	2	3	16	48	1	26	24	4	26	14	1	11	42	11	28	38	0	16	49	0	20	14
June 2	19	2	3	17	22	1	28	0	4	28	32	1	18	24	0	6	28	0	25	27	0	29	51
9	26	2	3	18	0	1	29	36	5	1	9	1	25	6	0	14	24	1	6	20	1	11	40
16	2	3	3	18	41	2	1	13	5	4	2	2	1	48	0	22	25	1	19	20	1	25	29
23	9	3	3	19	25	2	2	49	5	7	9	2	8	29	1	0	30	2	4	3	2	10	36
30	16	3	3	20	11	2	4	25	5	10	28	2	15	9	1	8	39	2	19	17	2	25	37
July 7	23	3	3	21	0	2	6	0	5	13	59	2	21	49	1	16	51	3	3	42	3	9	27
14	30	3	3	21	50	2	7	34	5	17	40	2	28	30	1	25	6	3	16	40	3	21	44
21	5	4	3	22	41	2	9	6	5	21	30	3	5	11	2	3	23	3	28	4	4	2	28
28	12	4	3	23	34	2	10	36	5	25	29	3	11	52	2	11	44	4	7	51	4	11	32
Aug. 4	19	4	3	24	27	2	12	4	5	29	34	3	18	34	2	20	7	4	15	52	4	18	39
11	26	4	3	25	21	2	13	28	6	3	47	3	25	17	2	28	34	4	21	36	4	23	9
18	1	5	3	26	15	2	14	49	6	8	7	4	2	0	3	7	2	4	24	9	4	23	58
25	8	5	3	27	8	2	16	6	6	12	32	4	8	45	3	15	33	4	22	22	4	20	14
Sept. 1	15	5	3	28	1	2	17	18	6	17	4	4	15	31	3	24	7	4	16	35	4	13	51
8	22	5	3	28	53	2	18	25	6	21	40	4	22	18	4	2	42	4	11	12	4	10	32
15	29	5	3	29	43	2	19	27	6	26	23	4	29	7	4	11	20	4	11	45	4	14	11
22	5	6	4	0	31	2	20	22	7	1	9	5	5	57	4	20	0	4	19	6	4	23	40
29	12	6	4	1	17	2	21	10	7	6	1	5	12	49	4	28	41	5	0	25	5	5	44
Oct. 6	19	6	4	2	1	2	21	51	7	10	57	5	19	42	5	7	24	5	12	53	5	18	13
13	26	6	4	2	41	2	22	23	7	15	57	5	26	38	5	16	8	5	25	11	6	0	18
20	3	7	4	3	18	2	22	47	7	21	1	6	3	34	5	24	53	6	6	58	6	11	52
27	10	7	4	3	51	2	23	2	7	26	9	6	10	33	6	3	39	6	18	15	6	22	57
Nov 3	17	7	4	4	20	2	23	7	8	1	21	6	17	33	6	12	26	6	29	7	7	3	40
10	24	7	4	4	45	2	23	2	8	6	36	6	24	34	6	21	13	7	9	38	7	14	2
17	1	8	4	5	4	2	22	47	8	11	53	7	1	37	7	0	1	7	19	46	7	23	56
24	8	8	4	5	19	2	22	23	8	17	14	7	8	41	7	8	49	7	29	14	8	2	54
Dec. 1	15	8	4	5	28	2	21	50	8	22	37	7	15	47	7	17	37	8	7	7	8	9	31
8	22	8	4	5	32	2	21	9	8	28	2	7	22	53	7	26	25	8	11	6	8	10	36
15	29	8	4	5	30	2	20	22	9	3	29	8	0	0	8	5	13	8	7	20	8	3	26
22	7	9	4	5	23	2	19	29	9	8	57	8	7	8	8	14	1	7	28	17	7	25	46
29	14	9	4	5	11	2	18	33	9	14	27	8	14	16	8	22	49	7	24	51	7	25	44
Jan. 5	21	9	4	4	52	2	17	35	9	19	57	8	21	23	9	1	36	7	28	27		—	

Stationary :—Saturn—Apr 9 D, December 10R ; Jupiter —January 27 D, November 4 R ; Mars—Feb. 4 R, Apr 26D ; Venus—Jan. 21 R, Mar. 3 D ; Mercury—Jan. 14 D, Apr. 17R, May 10D, Aug. 19R, Sept. 12D, Dec. 9R, 29D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ƃ) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 6	24	8	6 3 48	6 16 6	6 28 42	7 11 40	7 25 1	8 8 46	8 22 53
13	1	9	9 7 20	9 21 59	10 6 44	10 21 27	11 6 2	11 20 24	0 4 30
20	8	9	0 18 18	1 1 48	1 15 3	1 28 3	2 10 50	2 23 26	3 5 52
27	15	9	3 18 8	4 0 16	4 12 17	4 24 13	5 6 5	5 17 56	5 29 51
Feb. 3	22	9	6 11 53	6 24 7	7 6 37	7 19 29	8 2 47	8 16 32	9 0 45
10	29	9	9 15 24	10 0 23	10 15 32	11 0 41	11 15 41	0 0 22	0 14 40
17	7	10	0 28 33	1 12 1	1 25 7	2 7 54	2 20 25	3 2 45	3 14 57
24	14	10	3 27 1	4 9 0	4 20 56	5 2 49	5 14 41	5 26 34	6 8 31
Mar. 3	20	10	6 20 33	7 2 45	7 15 12	7 27 58	8 11 7	8 24 44	9 8 50
10	27	10	9 23 25	10 8 25	10 23 41	11 9 2	11 24 17	0 9 15	0 23 48
17	5	11	1 7 53	1 21 28	2 4 37	2 17 22	2 29 49	3 12 2	3 24 5
24	12	11	4 6 2	4 17 56	4 29 48	5 11 41	5 23 35	6 5 33	6 17 35
31	19	11	6 29 44	7 12 1	7 24 31	8 7 17	8 20 23	9 3 53	9 17 48
Apr. 7	26	11	10 2 10	10 16 56	11 2 1	11 17 15	0 2 27	0 17 28	1 2 7
14	4	12	1 16 20	2 0 4	2 13 20	2 26 10	3 8 40	3 20 53	4 2 55
21	11	12	4 14 50	4 26 42	5 8 34	5 20 28	6 2 27	6 14 32	6 26 44
28	17	12	7 9 5	7 21 36	8 4 19	8 17 15	9 0 27	9 13 58	9 27 48
May 5	24	12	10 11 58	10 26 27	11 11 11	11 26 3	0 10 57	0 25 43	1 10 13
12	2	1	1 24 22	2 8 7	2 21 27	3 4 22	3 16 56	3 29 13	4 11 17
19	9	1	4 23 13	5 5 5	5 16 59	5 28 56	6 11 0	6 23 14	7 5 39
26	16	1	7 18 15	8 1 5	8 14 8	8 27 24	9 10 53	9 24 36	10 8 31
June 2	23	1	10 22 38	11 6 55	11 21 19	0 5 47	0 20 13	1 4 33	1 18 42
9	1	2	2 2 35	2 16 10	2 29 24	3 12 18	3 24 53	4 7 12	4 19 18
16	8	2	5 1 15	5 13 9	5 25 3	6 7 2	6 19 10	7 1 30	7 14 6
23	14	2	7 26 58	8 10 8	8 23 34	9 7 16	9 21 11	10 5 15	10 19 26
30	21	2	11 3 41	11 17 55	0 2 8	0 16 16	1 0 17	1 14 10	1 27 52
July 7	29	2	2 11 22	2 24 38	3 7 38	3 20 23	4 2 53	4 15 9	4 27 14
14	6	3	5 9 11	5 21 4	6 2 58	6 14 56	6 27 5	7 9 28	7 22 9
21	13	3	8 5 12	8 18 37	9 2 25	9 16 32	10 0 55	10 15 27	11 0 1
28	20	3	11 14 32	11 28 55	0 13 6	0 27 4	1 10 49	1 24 20	2 7 38
Aug. 4	28	3	2 20 44	3 3 39	3 16 22	3 28 53	4 11 14	4 23 24	5 5 25
11	4	4	5 17 19	5 29 10	6 11 1	6 22 57	7 5 3	7 17 24	8 0 5
18	11	4	8 13 12	8 26 43	9 10 43	9 25 8	10 9 53	10 24 50	11 9 49
25	19	4	11 24 42	0 9 21	0 23 41	1 7 40	1 21 19	2 4 38	2 17 41
Sept. 1	26	4	3 0 29	3 13 6	3 25 32	4 7 49	4 19 59	5 2 1	5 13 56
8	3	5	5 25 48	6 7 37	6 19 27	7 1 21	7 13 25	7 25 43	8 8 20
15	10	5	8 21 21	9 4 50	9 18 50	10 3 19	10 18 13	11 3 23	11 18 40
22	17	5	0 3 52	0 18 49	1 3 24	1 17 33	2 1 16	2 14 35	2 27 33
29	25	5	3 10 12	3 22 38	4 4 52	4 16 58	4 28 58	5 10 53	5 22 45
Oct. 6	1	6	6 4 35	6 16 25	6 28 17	7 10 15	7 22 20	8 4 38	8 17 13
13	8	6	9 0 9	9 13 31	9 27 22	10 11 41	10 26 27	11 11 34	11 26 51
20	16	6	0 12 9	0 27 16	1 12 4	1 26 26	2 10 20	2 23 46	3 6 48
27	23	6	3 19 28	4 1 50	4 14 0	4 26 0	5 7 54	5 19 45	6 1 35
Nov. 3	30	6	6 13 27	6 25 22	7 7 21	7 19 27	8 1 42	8 14 8	8 26 49
10	6	7	9 9 47	9 23 5	10 6 47	10 20 52	11 5 20	11 20 7	0 5 7
17	14	7	0 20 12	1 5 13	1 20 0	2 4 27	2 18 30	3 2 5	3 15 15
24	22	7	3 28 1	4 10 27	4 22 37	5 4 36	5 16 28	5 28 18	6 10 8
Dec. 1	28	7	6 22 3	7 4 5	7 16 15	7 28 35	8 11 7	8 23 51	9 6 49
8	5	8	9 20 0	10 3 26	10 17 7	11 1 4	11 15 16	11 29 40	0 14 13
15	13	8	0 28 51	1 13 29	1 27 59	2 12 16	2 26 14	3 9 51	3 23 5
22	20	8	4 5 56	4 18 27	5 0 40	5 12 41	5 24 34	6 6 23	6 18 15
29	26	8	7 0 12	7 12 20	7 24 40	8 7 15	8 20 7	9 3 15	9 16 37
Jan. 5	3	9	10 0 13	—	—	—	—	—	—

Rahu (रा ☊ पी) on 1st of each month	Jan. :	8 8 18	8 6 39	8 5 10	8 3 32
	May :	8 1 56	8 0 18	7 28 43	7 27 4
	Sept. :	7 25 26	7 23 50	7 22 19	7 20 37

1919 A.D. 1325-26 B.S. *Ayanamsa* 22° 43′ 55″. CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			शा	♄	श	बृ	♃	बृ	मं	♂	मं	र	☉	र	शु	♀	शु	बु	☿	बु	☿ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	21	9	4	4	52	2	17	35	9	19	57	8	21	23	9	1	36	7	28	27	8	1	17
12	28	9	4	4	31	2	16	40	9	25	28	8	28	31	9	10	24	8	5	45	8	9	28
19	5	10	4	4	5	2	15	47	10	0	59	9	5	28	9	19	10	8	14	45	8	18	54
26	12	10	4	3	35	2	15	0	10	6	31	9	12	46	9	27	56	8	24	40	8	29	7
Feb. 2	19	10	4	3	4	2	14	19	10	12	2	9	19	52	10	6	42	9	5	14	9	9	57
9	26	10	4	2	30	2	13	46	10	17	32	9	26	58	10	15	26	9	16	24	9	21	23
16	4	11	4	1	56	2	13	21	10	23	2	10	4	2	10	24	9	9	28	14	10	3	31
23	11	11	4	1	23	2	13	7	10	28	30	10	11	6	11	2	51	10	10	47	10	16	23
Mar. 2	18	11	4	0	50	2	13	2	11	3	57	10	18	8	11	11	31	10	24	0	10	29	47
9	25	11	4	0	20	2	13	6	11	9	23	10	25	8	11	20	10	11	7	23	11	12	49
16	2	12	3	29	52	2	13	20	11	14	46	11	2	7	11	28	46	11	19	19	11	23	21
23	9	12	3	29	28	2	13	44	11	20	8	11	9	4	0	7	19	11	27	16	11	28	56
30	16	12	3	29	8	2	14	15	11	25	28	11	16	0	0	15	50	11	29	22	11	28	28
Apr. 6	23	12	3	28	53	2	14	55	0	0	45	11	22	54	0	24	19	11	26	2	11	23	45
13	30	12	3	28	43	2	15	43	0	6	0	11	29	46	1	2	44	11	20	49	11	19	9
20	7	1	3	28	38	2	16	37	0	11	13	0	6	37	1	11	6	11	18	0	11	18	1
27	14	1	3	28	38	2	17	37	0	16	23	0	13	26	1	19	24	11	19	10	11	20	59
May 4	21	1	3	28	43	2	18	43	0	21	31	0	20	14	1	27	38	11	23	52	11	26	45
11	28	1	3	28	54	2	19	54	0	26	36	0	27	0	2	5	47	0	1	15	0	5	5
18	4	2	3	29	9	2	21	9	1	1	38	1	3	45	2	13	50	0	10	45	0	15	24
25	11	2	3	29	30	2	22	28	1	6	38	1	10	29	2	21	48	0	22	8	0	27	34
June 1	18	2	3	29	54	2	23	51	1	11	36	1	17	12	2	29	38	1	5	20	1	11	30
8	25	2	4	0	24	2	25	16	1	16	31	1	23	54	3	7	20	1	20	5	1	26	40
15	32	2	4	0	57	2	26	44	1	21	23	2	0	35	3	14	53	2	5	25	2	11	49
22	7	3	4	1	33	2	28	14	1	26	13	2	7	16	3	22	12	2	19	58	2	25	44
29	14	3	4	2	13	2	29	45	2	1	1	2	13	57	3	29	17	3	2	56	3	7	57
July 6	21	3	4	2	56	3	1	18	2	5	47	2	20	37	4	6	5	3	14	7	3	18	22
13	28	3	4	3	41	3	2	51	2	10	30	2	27	18	4	12	30	3	23	27	3	26	50
20	4	4	4	4	29	3	4	25	2	15	11	3	3	58	4	18	26	4	0	40	4	2	58
27	11	4	4	5	18	3	5	58	2	19	50	3	10	40	4	23	46	4	5	10	4	6	4
Aug. 3	18	4	4	6	9	3	7	32	2	24	26	3	17	22	4	28	19	4	6	7	4	5	15
10	25	4	4	7	1	3	9	4	2	29	1	3	24	4	5	1	49	4	2	58	4	0	38
17	32	4	4	7	54	3	10	35	3	3	34	4	0	47	5	3	58	3	27	21	3	25	18
24	7	5	4	8	47	3	12	5	3	8	4	4	7	32	5	4	27	3	23	53	3	24	6
31	14	5	4	9	40	3	13	32	3	12	33	4	14	18	5	3	4	3	26	16	3	29	14
Sept. 7	21	5	4	10	33	3	14	57	3	17	0	4	21	4	4	29	53	4	4	39	4	9	32
14	28	5	4	11	26	3	16	19	3	21	24	4	27	53	4	25	41	4	16	41	4	22	16
21	4	6	4	12	17	3	17	37	3	25	47	5	4	43	4	21	42	4	29	45	5	5	17
28	11	6	4	13	7	3	18	52	4	0	7	5	11	35	4	19	7	5	12	30	5	17	46
Oct. 5	18	6	4	13	55	3	20	2	4	4	26	5	18	28	4	18	25	5	24	35	5	29	33
12	25	6	4	14	41	3	21	6	4	8	42	5	25	22	4	19	36	6	6	0	6	10	43
19	2	7	4	15	24	3	22	5	4	12	56	6	2	19	4	22	25	6	16	50	6	21	19
26	9	7	4	16	4	3	22	58	4	17	7	6	9	17	4	26	31	6	27	9	7	1	24
Nov. 2	16	7	4	16	41	3	23	43	4	21	15	6	16	17	5	1	35	7	6	35	7	10	48
9	23	7	4	17	15	3	24	21	4	25	21	6	23	18	5	7	25	7	15	41	7	18	58
16	30	7	4	17	44	3	24	50	4	29	23	7	0	21	5	13	50	7	22	36	7	24	28
23	7	8	4	18	8	3	25	11	5	3	22	7	7	25	5	20	43	7	25	16	7	24	11
30	14	8	4	18	28	3	25	22	5	7	16	7	14	30	5	27	57	7	20	19	7	16	17
Dec. 7	21	8	4	18	43	3	25	24	5	11	6	7	21	36	6	5	28	7	11	27	7	9	27
14	28	8	4	18	53	3	25	16	5	14	51	7	28	43	6	13	13	7	9	19	7	10	47
21	5	9	4	18	57	3	24	59	5	18	30	8	5	51	6	21	9	7	14	10	7	17	25
28	12	9	4	18	55	3	24	33	5	22	3	8	12	59	6	29	13	7	22	20	7	26	19
Jan. 4	19	9	4	18	48	3	23	57	5	25	27	8	20	6	7	7	23	8	1	51	—		

Stationary **:—Saturn—April 24 D, December 23 R ; Jupiter—March 3 D, December 5R ; Mars— ; Venus—Aug. 23R, Oct. 4D ; Mercury—Mar. 29R, Apr. 22 D, August 1 R, 25 D, November 28 R, December 13 D**

EPHEMERIS Saka era 1840-41, Samvat 1975-76 1919 A.D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	3	9	10	0	13	10	14	0	10	27	55	11	11	57	11	26	3	0	10	12	0	24	23
12	11	9	1	8	33	1	22	41	2	6	43	2	20	37	3	4	18	3	17	43	4	0	51
19	18	9	4	13	40	4	26	11	5	8	25	5	20	27	6	2	20	6	14	10	6	26	1
26	25	9	7	7	59	7	20	8	8	2	34	8	15	20	8	28	28	9	11	57	9	25	46
Feb. 2	2	10	10	9	51	10	24	6	11	8	26	11	22	47	0	7	3	0	21	12	1	5	13
9	9	10	1	19	6	2	2	51	2	16	27	2	29	57	3	13	10	3	26	15	4	9	7
16	17	10	4	21	45	5	4	9	5	16	20	5	28	19	6	10	12	6	22	0	7	3	49
23	23	10	7	15	46	7	27	54	8	10	20	8	23	8	9	6	22	9	20	2	10	4	8
Mar. 2	30	10	10	18	35	11	3	17	11	18	5	0	2	50	0	17	27	1	1	50	1	15	57
9	8	11	1	29	48	2	13	22	2	26	42	3	9	49	3	22	44	4	5	28	4	18	1
16	15	11	5	0	23	5	12	36	5	24	39	6	6	34	6	18	24	7	0	11	7	12	0
23	21	11	7	23	55	8	6	2	8	18	25	9	1	10	9	14	22	9	28	2	10	12	19
30	28	11	10	26	45	11	11	40	11	26	46	0	11	52	0	26	51	1	11	34	1	25	56
Apr. 6	6	12	2	9	56	2	23	33	3	6	50	3	19	48	4	2	30	4	14	59	4	27	17
13	13	12	5	9	25	5	21	27	6	3	22	6	15	12	6	27	0	7	8	49	7	20	40
20	20	12	8	2	37	8	14	46	8	27	9	9	9	52	9	22	58	10	6	32	10	20	33
27	27	12	11	5	1	11	19	52	0	4	59	0	20	13	1	5	23	1	20	20	2	4	58
May 4	.5	1	2	19	11	3	2	58	3	16	20	3	29	19	4	11	58	4	24	20	5	6	30
11	12	1	5	18	30	6	0	23	6	12	13	6	24	1	7	5	50	7	17	42	7	29	40
18	18	1	8	11	46	8	24	2	9	6	32	9	19	18	10	2	24	10	15	52	10	29	43
25	25	1	11	13	58	11	28	35	0	13	28	0	28	32	1	13	37	1	28	36	2	13	19
June 1	3	2	2	27	40	3	11	37	3	25	6	4	8	10	4	20	51	5	3	13	5	15	20
8	10	2	5	27	16	6	9	6	6	20	54	7	2	43	7	14	37	7	26	36	8	8	45
15	17	2	8	21	4	9	3	35	9	15	59	9	29	18	10	12	31	10	26	1	11	9	48
22	24	2	11	23	51	0	8	11	0	22	44	1	7	27	1	22	14	2	6	59	2	21	33
29	2	3	3	5	51	3	19	48	4	3	20	4	16	28	4	29	11	5	11	35	5	23	42
July 6	9	3	6	5	38	6	17	27	6	29	16	7	11	7	7	23	6	8	5	15	8	17	37
13	15	3	9	0	13	9	13	3	9	26	8	10	9	26	10	22	57	11	6	38	11	20	29
20	23	3	0	4	30	0	18	38	1	2	54	1	17	15	2	1	37	2	15	59	3	0	13
27	30	3	3	14	15	3	28	1	4	11	26	4	24	30	5	7	13	5	19	36	6	1	43
Aug. 3	7	4	6	13	39	6	25	28	7	7	17	7	19	11	8	1	13	8	13	30	8	26	3
10	14	4	9	8	55	9	22	6	10	5	34	10	19	17	11	3	12	11	17	14	0	1	20
17	21	4	0	15	28	0	29	35	1	13	42	1	27	47	2	11	48	2	25	44	3	9	34
24	29	4	3	23	13	4	6	38	4	19	48	5	2	41	5	15	15	5	27	32	6	9	38
31	6	5	6	21	32	7	3	21	7	15	9	7	27	3	8	9	7	8	21	27	9	4	6
Sept. 7	12	5	9	17	8	10	0	33	10	14	21	10	28	27	11	12	47	11	27	15	0	11	44
14	20	5	0	26	10	1	10	29	1	24	39	2	8	38	2	22	26	3	6	4	3	19	31
21	27	5	4	2	46	4	15	48	4	28	38	5	11	14	5	23	36	6	5	46	6	17	45
28	4	6	6	29	36	7	11	23	7	23	10	8	5	2	8	17	5	8	29	23	9	12	1
Oct. 5	11	6	9	25	4	10	8	33	10	22	29	11	6	49	11	21	28	0	6	18	0	21	13
12	18	6	1	6	3	1	20	42	2	5	6	2	19	12	3	3	0	3	16	29	3	29	42
19	26	6	4	12	39	4	25	22	5	7	52	5	20	10	6	2	19	6	14	19	6	26	12
26	3	7	7	8	0	7	19	46	8	1	33	8	13	26	8	25	27	9	7	43	9	20	17
Nov. 2	9	7	10	3	14	10	16	37	11	0	28	11	14	46	11	29	28	0	14	28	0	29	38
9	17	7	1	14	48	1	29	49	2	14	34	2	28	56	3	12	54	3	26	27	4	9	36
16	24	7	4	22	25	5	4	56	5	17	12	5	29	18	6	11	15	6	23	6	7	4	55
23	1	8	7	16	42	7	28	30	8	10	21	8	22	19	9	4	24	9	16	42	9	29	15
30	8	8	10	12	6	10	25	20	11	8	58	11	23	3	0	7	32	0	22	24	1	7	31
Dec. 7	15	8	1	22	45	2	7	57	2	22	57	3	7	35	3	21	47	4	5	31	4	18	47
14	23	8	5	1	37	5	14	5	5	26	16	6	8	15	6	20	6	7	1	53	7	13	39
21	29	8	7	25	28	8	7	21	8	19	21	9	1	29	9	13	46	9	26	14	10	8	54
28	6	9	10	21	48	11	4	59	11	18	28	0	2	18	0	16	28	1	0	59	1	15	47
Jan. 4	13	9	2	0	46		—			—			—			—			—			—	

Rahu (रा ☊ मं) on 1st of each month	Jan. :	7 18 57	7 17 19	7 15 50	7 14 11
	May :	7 12 36	7 10 57	7 9 22	7 7 43
	Sept. :	7 6 5	7 4 30	7 2 51	7 1 16

C.E.—6

1920 A.D. 1326-27 B.S. *Ayanamsa* **22° 44′ 48″ CONDENSED**

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ Wednes
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 4	19 9	4 18 48	3 23 57	5 25 27	8 20 6	7 7 23	8 1 51	8 6 10
11	26 9	4 18 36	3 23 14	5 28 44	8 27 14	7 15 40	8 12 4	8 16 36
18	4 10	4 18 19	3 22 26	6 1 50	9 4 22	7 24 1	8 22 45	8 27 28
25	11 10	4 17 57	3 21 33	6 4 45	9 11 29	8 2 26	9 3 52	9 8 17
Feb. 1	18 10	4 17 32	3 20 38	6 7 27	9 18 36	8 10 53	9 15 30	9 20 39
8	25 10	4 17 3	3 19 42	6 9 53	9 25 42	8 19 23	9 27 42	10 3 6
15	3 11	4 16 32	3 18 48	6 12 0	10 2 46	8 27 55	10 10 26	10 15 57
22	10 11	4 15 59	3 17 57	6 13 46	10 9 50	9 6 27	10 23 12	10 28 20
29	17 11	4 15 26	3 17 11	6 15 7	10 16 52	9 15 1	11 4 23	11 8 0
Mar. 7	24 11	4 14 52	3 16 32	6 16 0	10 23 53	9 23 35	11 11 6	11 11 56
14	1 12	4 14 20	3 16 1	6 16 21	11 0 52	10 2 10	11 11 1	11 9 5
21	8 12	4 13 49	3 15 39	6 16 6	11 7 50	10 10 46	11 5 37	11 3 0
28	15 12	4 13 22	3 15 25	6 15 13	11 14 46	10 19 21	11 0 18	10 29 11
Apr. 4	22 12	4 12 58	3 15 21	6 13 43	11 21 40	10 27 57	10 29 1	10 29 49
11	29 12	4 12 37	3 15 26	6 11 41	11 28 32	11 6 32	11 1 57	11 4 14
18	5 1	4 12 22	3 15 41	6 9 15	0 5 24	11 15 8	11 8 1	11 11 21
25	12 1	4 12 11	3 16 4	6 6 38	0 12 13	11 23 43	11 16 21	11 20 29
May 2	19 1	4 12 5	3 16 35	6 4 5	0 19 1	0 2 19	11 26 27	0 1 17
9	26 1	4 12 4	3 17 14	6 1 51	0 25 47	0 10 54	0 8 9	0 13 39
16	2 2	4 12 9	3 18 0	6 0 6	1 2 33	0 19 29	0 21 26	0 27 35
23	9 2	4 12 18	3 18 53	5 28 58	1 9 17	0 28 4	1 6 8	1 12 42
30	16 2	4 12 33	3 19 51	5 28 30	1 16 0	1 6 39	1 21 27	1 27 52
June 6	23 2	4 12 52	3 20 55	5 28 42	1 22 42	1 15 14	2 6 2	2 11 47
13	30 2	4 13 16	3 22 4	5 29 29	1 29 23	1 23 49	2 18 53	2 23 46
20	6 3	4 13 44	3 23 17	6 0 49	2 6 4	2 2 24	2 29 42	3 3 40
27	13 3	4 14 16	3 24 35	6 2 39	2 12 45	2 11 0	3 8 19	3 11 16
July 4	20 3	4 14 51	3 25 55	6 4 55	2 19 25	2 19 36	3 14 25	3 16 7
11	27 3	4 15 30	3 27 18	6 7 33	2 26 5	2 28 13	3 17 23	3 17 31
18	2 4	4 16 12	3 28 44	6 10 30	3 2 46	3 6 50	3 16 36	3 15 8
25	9 4	4 16 56	4 0 11	6 13 45	3 9 27	3 15 27	3 12 29	3 10 20
Aug. 1	16 4	4 17 43	4 1 41	6 17 15	3 16 9	3 24 5	3 7 53	3 6 46
8	23 4	4 18 31	4 3 11	6 20 59	3 22 51	4 2 43	3 6 40	3 7 47
15	30 4	4 19 21	4 4 42	6 24 54	3 29 34	4 11 21	3 10 53	3 14 20
22	6 5	4 20 13	4 6 14	6 29 0	4 6 19	4 19 59	3 20 13	3 25 25
29	13 5	4 21 5	4 7 45	7 3 16	4 13 4	4 28 38	4 2 52	4 8 41
Sept. 5	20 5	4 21 57	4 9 16	7 7 40	4 19 51	5 7 16	4 16 29	4 22 14
12	27 5	4 22 50	4 10 47	7 12 12	4 26 39	5 15 54	4 29 42	5 5 7
19	3 6	4 23 43	4 12 16	7 16 52	5 3 29	5 24 32	5 12 5	5 17 8
26	10 6	4 24 35	4 13 43	7 21 38	5 10 20	6 3 10	5 23 38	5 28 22
Oct. 3	17 6	4 25 25	4 15 8	7 26 30	5 17 13	6 11 47	6 4 27	6 8 53
10	24 6	4 26 15	4 16 31	8 1 27	5 24 8	6 20 24	6 14 34	6 18 40
17	31 6	4 27 3	4 17 50	8 6 29	6 1 4	6 29 1	6 23 53	6 27 33
24	7 7	4 27 48	4 19 6	8 11 26	6 8 2	7 7 37	7 2 0	7 4 53
31	14 7	4 28 31	4 20 17	8 16 46	6 15 1	7 16 12	7 7 52	7 9 10
Nov. 7	21 7	4 29 12	4 21 24	8 22 0	6 22 2	7 24 46	7 9 10	7 7 31
14	28 7	4 29 48	4 22 25	8 27 17	6 29 5	8 3 19	7 3 11	6 29 11
21	6 8	5 0 21	4 23 20	9 2 37	7 6 9	8 11 51	6 24 53	6 23 26
28	13 8	5 0 50	4 24 8	9 7 58	7 13 13	8 20 22	6 24 4	6 26 5
Dec. 5	20 8	5 1 15	4 24 49	9 13 22	7 20 19	8 28 50	7 0 5	7 3 43
12	27 8	5 1 35	4 25 23	9 18 46	7 27 26	9 7 16	7 9 3	7 13 17
19	4 9	5 1 49	4 25 47	9 24 12	8 4 34	9 15 39	7 19 7	7 23 35
26	11 9	5 1 59	4 26 3	9 29 38	8 11 42	9 23 58	7 29 38	8 4 13
Jan. 2	18 9	5 2 2	4 26 9	10 5 3	8 18 49	10 2 10	8 10 24	—

Stationary :—Saturn—May 7 D.; Jupiter—Apr. 4D ; Mars—March 15R, May 31 D ; Venus— ; Mercury—Mar. 11 R, Apr. 3 D, July 14 R, Aug. 7D, November 6 R, November 26 D.

EPHEMERIS Śaka era 1841-42, Samvat 1976-77 1920 A.D.

Date	Tithi & Month		Nirayana Long. of Moon (च ☽ ऽ) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 4	13	9	2	0	46	2	15	49	3	0	47	3	15	29	3	29	49	4	13	41	4	27	5
11	21	9	5	10	1	5	22	33	6	4	46	6	16	44	6	28	33	7	10	19	7	22	7
18	28	9	8	3	59	8	15	59	8	28	10	9	10	32	9	23	6	10	5	52	10	18	50
25	4	10	11	1	58	11	15	18	11	28	51	0	12	35	0	26	34	1	10	46	1	25	11
Feb. 1	12	10	2	9	45	2	24	24	3	9	1	3	23	28	4	7	39	4	21	29	5	4	53
8	19	10	5	17	52	6	0	27	6	12	43	6	24	44	7	6	35	7	18	23	8	0	12
15	26	10	8	12	7	8	24	13	9	6	33	9	19	9	10	2	0	10	15	7	10	28	28
22	3	11	11	12	0	11	25	41	0	9	30	0	23	25	1	7	25	1	21	31	2	5	40
29	10	11	2	19	52	3	4	4	3	18	13	4	2	14	4	16	2	4	29	34	5	12	47
Mar. 7	18	11	5	25	39	6	8	12	6	20	27	7	2	29	7	14	22	7	26	11	8	8	2
14	24	11	8	19	59	9	2	8	9	14	32	9	27	16	10	10	19	10	23	43	11	7	25
21	1	12	11	21	22	0	5	29	0	19	44	1	4	1	1	18	17	2	2	31	2	16	38
28	9	12	3	0	40	3	14	34	3	28	18	4	11	52	4	25	13	5	8	20	5	21	13
Apr. 4	16	12	6	3	50	6	16	13	6	28	23	7	10	23	7	22	16	8	4	5	8	15	56
11	23	12	8	27	54	9	10	2	9	22	27	10	5	11	10	18	17	11	1	48	11	15	42
18	30	12	11	29	56	0	14	27	0	29	7	1	13	51	1	28	32	2	13	3	2	27	22
25	7	1	3	11	26	3	25	13	4	8	43	4	21	58	5	4	57	5	17	41	6	0	13
May 2	15	1	6	12	34	6	24	44	7	6	45	7	18	40	8	0	31	8	12	21	8	24	13
9	21	1	9	6	10	9	18	18	10	0	40	10	13	21	10	26	24	11	9	52	11	23	46
16	28	1	0	8	6	0	22	47	1	7	44	1	22	49	2	7	52	2	22	45	3	7	21
23	6	2	3	21	36	4	5	27	4	18	54	5	1	59	5	14	45	5	7	14	6	9	31
30	13	2	6	21	37	7	3	36	7	15	30	7	27	21	8	9	11	8	21	2	9	2	57
June 6	20	2	9	14	57	9	27	7	10	9	29	10	22	7	11	5	5	11	18	26	0	2	13
13	27	2	0	16	26	1	1	4	1	16	3	2	1	15	2	16	30	3	1	37	3	16	28
20	4	3	4	0	56	4	14	55	4	28	26	5	11	31	5	24	12	6	6	35	6	18	43
27	11	3	7	0	41	7	12	33	7	24	23	8	6	13	8	18	4	9	0	0	9	12	1
July 4	18	3	9	24	9	10	6	25	10	18	52	11	1	33	11	14	30	11	27	46	0	11	24
11	25	3	0	25	27	1	9	53	1	24	41	2	9	44	2	24	55	3	10	3	3	24	58
18	3	4	4	9	31	4	23	37	5	7	14	5	20	21	6	3	4	6	15	26	6	27	32
25	10	4	7	9	28	7	21	18	8	3	7	8	14	59	8	26	55	9	8	57	9	21	8
Aug. 1	17	4	10	3	28	10	15	57	10	28	37	11	11	28	11	24	32	0	7	51	0	21	27
8	24	4	1	5	21	1	19	34	2	4	5	2	18	50	3	3	43	3	18	36	4	3	20
15	1	4	4	17	46	5	1	50	5	15	26	5	28	36	6	11	21	6	23	45	7	5	52
22	8	4	7	17	49	7	29	40	8	11	31	8	23	25	9	5	26	9	17	37	9	29	59
29	15	4	10	12	33	10	25	20	11	8	19	11	21	28	0	4	49	0	18	21	1	2	5
Sept.5	22	4	1	16	59	2	0	6	2	14	22	2	28	47	3	13	16	3	27	43	4	12	4
12	30	4	4	26	11	5	10	0	5	23	27	6	6	33	6	19	16	7	1	40	7	13	49
19	7	5	7	25	48	8	7	40	8	19	32	9	1	28	9	13	32	9	25	48	10	8	19
26	13	5	10	21	7	11	4	10	11	17	30	0	1	4	0	14	50	0	28	45	1	12	43
Oct. 3	21	5	1	26	56	2	11	6	2	25	18	3	9	28	3	23	25	4	7	36	4	21	28
10	28	5	5	5	8	5	18	34	6	1	44	6	14	36	6	27	12	7	9	33	7	21	40
17	5	6	8	3	38	8	15	31	8	27	23	9	9	18	9	21	22	10	3	39	10	16	12
24	12	6	10	29	5	11	12	19	11	25	55	0	9	51	0	24	3	1	8	28	1	22	58
31	19	6	2	7	30	2	21	58	3	6	17	3	20	25	4	4	21	4	18	2	5	1	30
Nov. 7	27	6	5	14	44	5	27	44	6	10	31	6	23	6	7	5	29	7	17	42	7	29	45
14	4	7	8	11	41	8	23	33	9	5	24	9	17	18	9	29	18	10	11	31	10	24	0
21	10	7	11	6	50	11	20	4	0	3	45	0	17	51	1	2	21	1	17	9	2	2	7
28	18	7	2	17	7	3	2	0	3	16	39	4	0	57	4	14	54	4	28	29	5	11	43
Dec. 5	25	7	5	24	39	6	7	20	6	19	48	7	2	5	7	14	15	7	26	17	8	8	15
12	2	8	8	20	8	9	2	0	9	13	51	9	25	44	10	7	43	10	19	52	11	2	16
19	9	8	11	14	58	11	28	4	0	11	37	0	25	39	1	10	9	1	25	5	2	10	18
26	16	8	2	25	37	3	10	52	3	25	52	4	10	29	4	24	38	5	8	19	5	21	32
Jan. 2	24	8	6	4	22		—			—			—			—			—			—	

Rahu (रा ☊ ब्रा) on 1st of each month	Jan. :	6	29	36	6	27	58	6	26	26	6	24	47
	May :	6	23	12	6	21	33	6	19	59	6	18	20
	Sept. :	6	16	41	6	15	6	6	13	27	6	11	52

1921 A.D. 1327-28 B.S. *Ayanamsa* 22° 45′ 28′ CONDENSED.

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																					
			शा ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 2	18	9	5	2	2	4	26	9	10	5	3	8	18	49	10	2	10	8	10	24	8	15	6
9	25	9	5	2	1	4	26	6	10	10	29	8	25	57	10	10	18	8	21	28	8	26	19
16	3	10	5	1	54	4	25	53	10	15	55	9	3	5	10	18	17	9	2	54	9	7	55
23	10	10	5	1	42	4	25	32	10	21	20	9	10	12	10	26	7	9	14	44	9	19	56
30	17	10	5	1	26	4	25	2	10	26	44	9	17	19	11	3	45	9	26	57	10	2	12
Feb. 6	24	10	5	1	5	4	24	24	11	2	6	9	24	25	11	11	8	10	9	3	10	13	52
13	1	11	5	0	40	4	23	39	11	7	27	10	1	30	11	18	13	10	19	25	10	22	34
20	8	11	5	0	11	4	22	49	11	12	47	10	8	34	11	24	53	10	24	49	10	24	48
27	15	11	4	29	41	4	21	56	11	18	4	10	15	36	0	1	4	10	22	36	10	19	49
Mar. 6	22	11	4	29	8	4	21	1	11	23	19	10	22	37	0	6	35	10	15	45	10	13	12
13	29	11	4	28	35	4	20	7	11	28	33	10	29	37	0	11	17	10	11	8	10	10	42
20	7	12	4	28	2	4	19	15	0	3	44	11	6	35	0	14	52	10	11	31	10	13	0
27	14	12	4	27	30	4	18	27	0	8	53	11	13	31	0	17	2	10	15	55	10	18	42
Apr. 3	21	12	4	27	0	4	17	44	0	13	59	11	20	25	0	17	25	10	23	2	10	26	41
10	28	12	4	26	32	4	17	9	0	19	3	11	27	18	0	15	51	11	2	2	11	6	21
17	4	1	4	26	8	4	16	40	0	24	5	0	4	10	0	12	29	11	12	32	11	17	27
24	11	1	4	25	47	4	16	22	0	29	5	0	10	59	0	8	9	11	24	24	11	29	55
May 1	18	1	4	25	31	4	16	12	1	4	2	0	17	47	0	4	11	0	7	39	0	13	45
8	25	1	4	25	20	4	16	10	1	8	57	0	24	34	0	1	42	0	22	13	0	28	43
15	1	2	4	25	14	4	16	18	1	13	49	1	1	20	0	1	9	1	7	25	1	13	48
22	8	2	4	25	12	4	16	34	1	18	40	1	8	4	0	2	25	1	21	55	1	27	35
29	15	2	4	25	16	4	16	59	1	23	28	1	14	47	0	5	15	2	4	30	2	9	11
June 5	22	2	4	25	25	4	17	31	1	28	14	1	21	29	0	9	16	2	14	44	2	18	19
12	29	2	4	25	38	4	18	11	2	2	59	1	28	11	0	14	13	2	22	20	2	24	42
19	5	3	4	25	57	4	18	58	2	7	40	2	4	52	0	19	50	2	26	56	2	27	51
26	12	3	4	26	20	4	19	51	2	12	21	2	11	32	0	26	0	2	28	0	2	27	20
July 3	19	3	4	26	47	4	20	50	2	17	0	2	18	13	1	2	35	2	25	34	2	23	48
10	26	3	4	27	18	4	21	54	2	21	37	2	24	53	1	9	29	2	21	19	2	19	45
17	1	4	4	27	52	4	23	3	2	26	13	3	1	34	1	16	40	2	18	31	2	18	27
24	8	4	4	28	30	4	24	16	3	0	47	3	8	15	1	24	3	2	19	42	2	21	40
31	15	4	4	29	11	4	25	33	3	5	20	3	14	56	2	1	37	2	25	37	2	29	31
Aug. 7	22	4	4	29	55	4	26	53	3	9	51	3	21	39	2	9	20	3	5	49	3	11	13
14	29	4	5	0	40	4	28	16	3	14	22	3	28	22	2	17	11	3	18	59	3	25	2
21	5	5	5	1	28	4	29	41	3	18	51	4	5	6	2	25	10	4	3	7	4	9	4
28	12	5	5	2	18	5	1	8	3	23	19	4	11	51	3	3	15	4	16	45	4	22	19
Sept. 4	19	5	5	3	8	5	2	37	3	27	46	4	18	38	3	11	25	4	29	26	5	4	34
11	26	5	5	4	0	5	4	7	4	2	12	4	25	26	3	19	41	5	11	8	5	15	52
18	2	6	5	4	52	5	5	38	4	6	37	5	2	15	3	28	1	5	21	55	5	26	17
25	9	6	5	5	44	5	7	8	4	11	2	5	9	6	4	6	26	6	1	49	6	5	46
Oct. 2	16	6	5	6	36	5	8	39	4	15	25	5	15	59	4	14	55	6	10	41	6	14	4
9	23	6	5	7	27	5	10	9	4	19	47	5	22	53	4	23	27	6	18	3	6	20	31
16	30	6	5	8	18	5	11	39	4	24	9	5	29	49	5	2	2	6	22	48	6	23	31
23	6	7	5	9	7	5	13	6	4	28	30	6	6	46	5	10	40	6	22	41	6	20	31
30	13	7	5	9	54	5	14	32	5	2	49	6	13	46	5	19	20	6	15	55	6	12	7
Nov. 6	20	7	5	10	39	5	15	56	5	7	8	6	20	47	5	28	2	6	8	29	6	7	38
13	27	7	5	11	22	5	17	16	5	11	25	6	27	49	6	6	46	6	9	2	6	11	32
20	4	8	5	12	2	5	18	33	5	15	42	7	4	52	6	15	31	6	16	7	6	20	7
27	11	8	5	12	38	5	19	47	5	19	57	7	11	57	6	24	17	6	25	52	7	0	21
Dec. 4	18	8	5	13	11	5	20	55	5	24	10	7	19	3	7	3	4	7	6	27	7	11	4
11	25	8	5	13	39	5	21	58	5	28	22	7	26	10	7	11	52	7	17	15	7	21	55
18	3	9	5	14	3	5	22	56	6	2	32	8	3	17	7	20	40	7	28	9	8	2	51
25	10	9	5	14	23	5	23	47	6	6	39	8	10	25	7	29	28	8	9	11	8	13	58
Jan. 1	17	9	5	14	36	5	24	30	6	10	44	8	17	32	8	8	15	8	20	24		—	

Stationary **:—Saturn—January 4 R, May 21 D; Jupiter—January 4 R, May 6 D; Mars—; Verus—April 1 R, 14 D; Mercury—February 22 R, March 16 D, June 25 R, July 19 D, Oct. 20 R, November 9 D.**

Date	*Tithi & Month*		*Nirayana* Long. of Moon (च ☽ ५) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 2	24	8	6	4	22	6	16	53	6	29	10	7	11	16	7	23	15	8	5	10	8	17	3
9	30	8	8	28	55	9	10	47	9	22	41	10	4	39	10	16	42	10	28	53	11	11	15
16	7	9	11	23	54	0	6	52	0	20	14	1	4	4	1	18	22	2	3	7	2	18	13
23	14	9	3	3	33	3	18	54	4	4	4	4	18	54	5	3	16	5	17	8	6	0	30
30	22	9	6	13	25	6	25	58	7	8	13	7	20	15	8	2	10	8	14	2	8	25	52
Feb. 6	29	9	9	7	44	9	19	40	10	1	40	10	13	46	10	25	59	11	8	21	11	20	52
13	5	10	0	3	36	0	16	36	0	29	55	1	13	36	1	27	40	2	12	7	2	26	53
20	13	10	3	11	54	3	26	59	4	12	0	4	26	47	5	11	11	5	25	9	6	8	38
27	20	10	6	21	41	7	4	19	7	16	39	7	28	44	8	10	40	8	22	32	9	4	23
Mar. 6	27	10	9	16	17	9	28	17	10	10	25	10	22	42	11	5	9	11	17	47	0	0	37
13	4	11	0	13	38	0	26	53	1	10	21	1	24	4	2	8	3	2	22	16	3	6	42
20	11	11	3	21	17	4	5	56	4	20	32	5	4	57	5	19	7	6	2	57	6	16	24
27	19	11	6	29	29	7	12	11	7	24	35	8	6	45	8	18	44	9	0	37	9	12	30
Apr. 3	25	11	9	24	26	10	6	29	10	18	43	11	1	10	11	13	52	11	26	48	0	10	0
10	2	12	0	23	26	1	7	5	1	20	55	2	4	54	2	19	1	3	3	12	3	17	27
17	10	12	4	1	41	4	15	53	5	0	0	5	13	57	5	27	42	6	11	12	6	24	26
24	17	12	7	7	22	7	20	1	8	2	25	8	14	35	8	26	36	9	8	30	9	20	24
May 1	24	12	10	2	20	10	14	24	10	26	41	11	9	13	11	22	4	0	5	16	0	18	48
8	1	1	1	2	38	1	16	45	2	1	3	2	15	27	2	29	52	3	14	14	3	28	29
15	8	1	4	12	35	4	26	29	5	10	12	5	23	43	6	7	2	6	20	9	7	3	3
22	16	1	7	15	44	7	28	13	8	10	30	8	22	37	9	4	36	9	16	30	9	28	23
29	22	1	10	10	18	10	22	21	11	4	36	11	17	9	0	0	3	0	13	21	0	27	5
June 5	29	1	1	11	14	1	25	43	2	10	27	2	25	18	3	10	7	3	24	47	4	9	12
12	7	2	4	23	20	5	7	8	5	20	39	6	3	52	6	16	51	6	29	37	7	12	13
19	14	2	7	24	38	8	6	54	8	19	2	9	1	4	9	12	59	9	24	51	10	6	42
26	21	2	10	18	36	11	0	37	11	12	50	11	25	20	0	8	12	0	21	29	1	5	15
July 3	28	2	1	19	30	2	4	10	2	19	11	3	4	21	3	19	30	4	4	30	4	19	10
10	5	3	5	3	27	5	17	19	6	0	48	6	13	54	6	26	42	7	9	16	7	21	38
17	13	3	8	3	50	8	15	56	8	27	55	9	9	51	9	21	44	10	3	35	10	15	27
24	19	3	10	27	22	11	9	24	11	21	37	0	4	5	0	16	53	1	0	6	1	13	47
31	26	3	1	27	57	2	12	35	2	27	36	3	12	51	3	28	9	4	13	20	4	28	13
Aug. 7	4	4	5	13	42	5	26	43	6	10	16	6	23	25	7	6	11	7	18	40	8	0	55
14	11	4	8	13	0	8	24	59	9	6	53	9	18	46	10	0	38	10	12	31	10	24	28
21	18	4	11	6	29	11	18	37	0	0	56	0	13	28	0	26	18	1	9	28	1	23	3
28	25	4	2	7	4	2	21	29	3	6	17	3	21	21	4	6	32	4	21	39	5	6	34
Sept. 4	3	5	5	21	8	6	5	16	6	18	57	7	2	11	7	15	2	7	27	32	8	9	47
11	10	5	8	21	50	9	3	46	9	15	38	9	27	30	10	9	23	10	21	22	11	3	26
18	16	5	11	15	39	11	28	1	0	10	33	0	23	18	1	6	18	1	19	35	2	3	9
25	23	5	2	17	3	3	1	15	3	15	44	4	0	26	4	15	15	5	0	4	5	14	45
Oct. 2	1	6	5	29	11	6	13	17	6	27	0	7	10	19	7	23	14	8	5	49	8	18	6
9	8	6	9	0	10	9	12	5	9	23	57	10	5	49	10	17	46	10	29	50	11	12	4
16	15	6	11	24	30	0	7	10	0	20	3	1	3	10	1	16	31	2	0	4	2	13	50
23	22	6	2	27	46	3	11	52	3	26	6	4	10	25	4	24	47	5	9	8	5	23	24
30	30	6	6	7	29	6	21	21	7	4	56	7	18	11	8	1	5	8	13	41	8	26	0
Nov. 6	7	7	9	8	5	9	20	1	10	1	52	10	13	44	10	25	41	11	7	48	11	20	9
13	13	7	0	2	47	0	15	43	0	28	59	1	12	32	1	26	20	2	10	21	2	24	29
20	20	7	3	8	41	3	22	54	4	7	4	4	21	10	5	5	11	5	19	5	6	2	53
27	28	7	6	16	31	7	0	0	7	13	15	7	26	17	8	9	4	8	21	35	9	3	51
Dec. 4	5	8	9	15	55	9	27	50	10	9	40	10	21	30	11	3	25	11	15	31	11	27	52
11	11	8	0	10	34	0	23	39	1	7	10	1	21	4	2	5	19	2	19	49	3	4	26
18	19	8	3	19	4	4	3	36	4	17	57	5	2	4	5	15	58	5	29	37	6	13	4
25	26	8	6	26	19	7	9	23	7	22	16	8	4	59	8	17	31	8	29	51	9	12	1
Jan. 1	3	9	9	24	1		—			—			—			—			—			—	

Rahu (रा ☊ श्वा) on 1st of each month

Jan. :	6 10 12	6 8 34	6 7 5	6 5 27
May :	6 3 51	6 2 13	6 0 37	5 28 59
Sept. :	5 27 20	5 25 45	5 24 7	5 22 31

1922 A.D. 1328-29 B.S. *Ayanamsa* 22° 46′ 18″ CONDENSED

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
		श ♄ শ	बृ ♃ বৃ	म ♂ ম	र ☉ র	शु ♀ শু	बु ☿ বু	☿ Wednes
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	17 9	5 14 36	5 24 30	6 10 44	8 17 32	8 8 15	8 20 24	8 25 18
8	24 9	5 14 46	5 25 7	6 14 47	8 24 41	8 17 4	9 1 54	9 6 50
15	1 10	5 14 50	5 25 36	6 18 47	9 1 49	8 25 52	9 13 35	9 18 31
22	8 10	5 14 49	5 25·55	6 22 23	9 8 50	9 4 40	9 24 58	9 29 25
29	15 10	5 14 42	5 26 6	6 26 35	9 16 3	9 13 28	10 4 26	10 7 5
Feb. 5	22 10	5 14 31	5 26 7	7 0 22	9 23 9	9 22 15	10 8 28	10 7 38
12	29 10	5 14 14	5 25 59	7 4 4	10 0 14	10 1 2	10 4 19	10 0 56
19	7 11	5 13 53	5 25 42	7 7 39	10 7 18	10 9 48	9 26 43	9 24 31
26	14 11	5 13 28	5 25 16	7 11 8	10 14 21	10 18 33	9 23 17	9 23 34
Mar. 5	21 11	5 13 0	5 24 42	7 14 28	10 21 23	10 27 18	9 25 15	9 27 18
12	28 11	5 12 30	5 24 1	7 17 38	10 28 22	11 6 2	10 0 51	10 4 1
19	5 12	5 11 58	5 23 14	7 20 37	11 5 20	11 14 44	10 8 45	10 12 39
26	12 12	5 11 25	5 22 24	7 23 22	11 12 17	11 23 26	10 18 13	10 22 41
Apr. 2	19 12	5 10 53	5 21 30	7 25 51	11 19 12	0 2 6	10 28 58	11 3 56
9	26 12	5 10 21	5 20 36	7 28 2	11 26 5	0 10 45	11 10 54	11 16 23
16	3 1	5 9 51	5 19 44	7 29 51	0 2 56	0 19 23	11 24 2	0 0 3
23	10 1	5 9 24	5 18 54	8 1 15	0 9 46	0 27 59	0 8 22	0 14 46
30	17 1	5 8 59	5 18 9	8 2 9	0 16 35	1 6 34	0 23 21	0 29 39
May 7	24 1	5 8 38	5 17 29	8 2 29	0 23 21	1 15 6	1 7 38	1 13 10
14	31 1	5 8 22	5 16 57	8 2 15	1 0 7	1 23 39	1 19 49	1 24 12
21	7 2	5 8 10	5 16 33	8 1 24	1 6 51	2 2 8	1 29 11	2 2 15
28	14 2	5 8 4	5 16·18	7 29 57	1 13 34	2 10 36	2 5 23	2 6 58
June 4	21 2	5 8 2	5 16 11	7 28 2	1 20 17	2 19 2	2 8 2	2 8 1
11	28 2	5 8 5	5 16 14	7 25 49	1 26 59	2 27 27	2 7 1	2 5 40
18	4 3	5 8 13	5 16 25	7 23 32	2 3 40	3 5 49	2 3 27	2 1 48
25	11 3	5 8 26	5 16 44	7 21 26	2 10 20	3 14 8	2 0 6	1 29 26
July 2	18 3	5 8 44	5 17. 12	7 19 47	2 17 1	3 22 25	1 29 36	2 0 36
9	25 3	5 9 6	5 17 47	7 18 43	2 23 41	4 0 38	2 3 4	2 5 47
16	32 3	5 9 32	5 18 29	7 18 19	3 0 22	4 8 48	2 10 29	2 14 47
23	7 4	5 10 3	5 19 18	7 18 36	3 7 3	4 16 54	2 21 27	2 27 2
30	14 4	5 10 36	5 20 14	7 19 33	3 13 44	4 24 56	3 5 3	3 11 16
Aug. 6	21 4	5 11 14	5 21 15	7 21 6	3 20 26	5 2 51	3 19 36	3 25 44
13	28 4	5 11 51	5 22 21	7 23 10	3 27 9	5 10 41	4 3 39	4 9 21
20	3 5	5 12 37	5 23 31	7 25 43	4 3 53	5 18 23	4 16 36	4 21 49
27	10 5	5 13 22	5 24 46	7 28 40	4 10 38	5 25 56	4 28 26	5 3 10
Sept. 3	17 5	5 14 9	5 26 4	8 1 58	4 17 24	6 3 18	5 9 10	5 13 27
10	24 5	5 14 58	5 27 26	8 5 34	4 24 12	6 10 27	5 18 49	5 22 35
17	31 5	5 15 48	5 28 50	8 9 26	5 1 1	6 17 20	5 27 11	6 0 16
24	7 6	5 16 39	6 0 17	8 13 31	5 7 52	6 23 52	6 3 44	6 5 42
Oct. 1	14 6	5 17 30	6 1 45	8 17 48	5 14 44	6 29 58	6 7 14	6 7 19
8	21 6	5 18 22	6 3 15	8 22 14	5 21 38	7 5 28	6 5 41	6 3 5
15	28 6	5 19 13	6 4 46	8 26 49	5 28 34	7 10 12	5 28 26	5 25 2
22	5 7	5 20 4	6 6 17	9 1 31	6 5 31	7 13 56	5 22 13	5 22 0
29	12 7	5 20 54	6 7 49	9 6 20	6 12 30	7 16 20	5 24 7	5 27 6
Nov 5	19 7	5 21 43	6 9 20	9 11 13	6 19 31	7 17 2	6 2 13	6 6 34
12	26 7	5 22 30	6 10 50	9 16 10	6 26 32	7 15 48	6 12 43	6 17 27
19	3 8	5 23 14	6 12 20	9 21 11	7 3 36	7 12 45	6 23 48	6 28 35
26	10 8	5 23 56	6 13 47	9 26 14	7 10 41	7 8 39	7 4 55	7 9 39
Dec. 3	17 8	5 24 35	6 15 13	10 1 20	7 17 46	7 4 45	7 15 57	7 20 40
10	24 8	5 25 11	6 16 35	10 6 27	7 24 53	7 2 17	7 26 57	8 1 40
17	2 9	5 25 43	6 17 55	10 11 35	8 2 20	7 1 47	8 7 59	8 12 45
24	9 9	5 26 11	6 19 10	10 16 44	8 9 8	7 3 12	8 19 8	8 23 56
31	16 9	5 26 35	6 20 21	10 21 53	8 16 16	7 6 13	9 0 17	9 5 20
Jan. 7	23 9	5 27 53	6 21 28	10 27 1	8 23 24	7 10 30	9 10 55	—

Stationary :—Saturn—January 17 R, June 3 D; Jupiter—February 3 R, June 6 D; Mars—May 8 R, July 17 D; Venus—Nov. 5 R, Dec. 16 D; Mercury—February 5 R, 27D, June 6 R, 30 D, October 3 R, 24 D.

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Nirayana Long. of Moon (च ☽ द्र) at 5-30 P.M. I.S.T.

Date	Tithi & Month		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	3	9	9 24 1	10 5 53	10 17 41	10 29 29	11 11 21	11 23 23	0 5 41
8	10	9	0 18 20	1 1 24	1 14 56	1 28 58	2 13 26	2 28 16	3 13 17
15	17	9	3 28 21	4 13 18	4 28 0	5 12 22	5 26 23	6 10 2	6 23 21
22	25	9	7 6 24	7 19 12	8 1 47	8 14 13	8 26 29	9 8 36	9 20 37
29	2	10	10 2 31	10 14 20	10 26 8	11 7 55	11 19 48	0 1 49	0 14 4
Feb. 5	8	10	0 26 38	1 9 35	1 23 1	2 6 56	2 21 21	3 6 11	3 21 20
12	15	10	4 6 37	4 21 51	5 6 53	5 21 34	6 5 50	6 19 41	7 3 6
19	23	10	7 16 9	7 28 52	8 11 19	8 23 33	9 5 38	9 17 25	9 29 28
26	30	10	10 11 18	10 23 6	11 4 55	11 16 47	11 28 45	0 10 51	0 23 10
Mar. 5	6	11	1 5 44	1 18 39	2 1 57	2 15 42	2 29 53	3 14 29	3 29 26
12	14	11	4 14 36	4 29 49	5 14 56	5 29 48	6 14 18	6 28 22	7 11 58
19	21	11	7 25 8	8 7 55	8 20 22	9 2 34	9 14 34	9 26 26	10 8 15
26	28	11	10 20 3	11 1 53	11 13 47	11 25 47	0 7 56	0 20 14	1 2 45
Apr. 2	5	12	1 15 30	1 28 31	2 11 50	2 25 29	3 9 28	3 23 46	4 8 22
9	12	12	4 23 11	5 8 6	5 23 1	6 7 46	6 22 16	7 6 24	7 20 8
16	20	12	8 3 25	8 16 18	8 28 49	9 11 3	9 23 3	10 4 54	10 16 42
23	27	12	10 28 31	11 10 24	11 22 25	0 4 36	0 16 59	0 29 36	1 12 26
30	3	1	1 25 30	2 8 48	2 22 18	3 6 2	3 19 57	4 4 5	4 18 22
May 7	11	1	5 2 26	5 17 17	6 1 47	6 16 13	7 0 27	7 14 26	7 28 5
14	18	1	8 11 22	8 24 16	9 6 49	9 19 4	10 1 6	10 12 58	10 24 47
21	25	1	11 6 37	11 18 33	0 0 41	0 13 2	0 25 40	1 8 35	1 21 48
28	2	2	2 5 16	2 18 57	3 2 49	3 16 48	4 0 52	4 14 59	4 29 7
June 4	9	2	5 13 16	5 27 24	6 11 29	6 25 29	7 9 20	7 22 59	8 6 23
11	17	2	8 19 29	9 2 17	9 14 46	9 26 50	10 9 0	10 20 52	11 2 41
18	24	2	11 14 32	11 26 30	0 8 41	0 21 8	1 3 56	1 17 6	2 0 38
25	30	2	2 14 30	2 28 37	3 12 54	3 27 16	4 11 38	4 25 56	5 10 7
July 2	8	3	5 24 10	6 8 5	6 21 51	7 5 29	7 18 56	8 2 11	8 15 14
9	15	3	8 28 3	9 10 37	9 22 57	10 5 5	10 17 2	10 28 52	11 10 40
16	22	3	11 22 30	0 4 28	0 16 39	0 29 8	1 12 0	1 25 17	2 8 59
23	29	3	2 23 6	3 7 33	3 22 14	4 7 0	4 21 44	5 6 21	5 20 45
30	7	4	6 4 54	6 18 47	7 2 24	7 15 47	7 28 25	8 11 50	8 24 33
Aug. 6	14	4	9 7 3	9 19 22	10 1 31	10 13 30	10 25 22	11 7 10	11 18 57
13	20	4	0 0 47	0 12 44	0 24 55	1 7 22	1 20 12	2 3 27	2 17 10
20	27	4	3 1 20	3 15 35	4 0 47	4 15 51	5 0 55	5 15 52	6 0 34
27	5	5	6 14 57	6 28 58	7 12 37	7 25 54	8 8 53	8 21 35	9 4 2
Sept. 3	12	5	9 16 17	9 28 23	10 10 21	10 22 13	11 4 2	11 15 49	11 27 37
10	19	5	0 9 30	0 21 30	1 3 42	1 16 9	1 28 55	2 12 5	2 25 40
17	26	5	3 9 42	3 24 10	4 9 0	4 24 5	5 9 17	5 24 27	6 9 24
24	4	6	6 24 3	7 8 17	7 22 4	8 5 26	8 18 23	9 1 0	9 13 19
Oct. 1	11	6	9 25 26	10 7 26	10 19 13	11 1 1	11 12 49	11 24 39	0 6 33
8	17	6	0 18 42	1 0 42	1 13 1	1 25 34	2 8 22	2 21 28	3 4 55
15	24	6	3 18 45	4 2 58	4 17 32	5 2 23	5 17 26	6 2 33	6 17 33
22	2	7	7 2 19	7 16 43	8 0 40	8 14 9	8 27 11	9 9 49	9 22 7
29	9	7	10 4 10	10 16 3	10 27 51	11 9 38	11 21 28	0 3 23	0 15 26
Nov. 5	16	7	1 27 39	1 10 2	1 22 37	2 5 24	2 18 23	3 1 35	3 15 2
12	23	7	3 28 45	4 12 43	4 26 58	5 11 27	5 26 8	6 10 56	6 25 42
19	1	8	7 10 19	7 24 40	8 8 38	8 22 11	9 5 17	9 17 59	10 0 19
26	8	8	10 12 23	10 24 16	11 6 4	11 17 51	11 29 44	0 11 45	0 23 57
Dec. 3	14	8	1 6 24	1 19 5	2 2 0	2 15 9	2 28 29	3 11 59	3 25 39
10	21	8	4 9 26	4 23 22	5 7 25	5 21 36	6 5 53	6 20 13	7 4 33
17	29	8	7 18 48	8 2 50	8 16 36	9 0 1	9 13 5	9 25 46	10 8 7
24	6	9	10 20 12	11 2 6	11 13 55	11 25 43	0 7 36	0 19 40	1 1 59
31	13	9	1 14 35	1 27 32	2 10 45	2 24 16	3 8 3	3 21 59	4 6 3
Jan. 7	20	9	4 20 10	—	—	—	—	—	—

Rahu (रा ☊ हु) on 1st of each month					
	Jan. :	5 20 53	5 19 14	5 17 45	5 16 7
	May .	5 14 30	5 12 52	5 11 17	5 9 33
	Sept. :	5 8 0	5 6 24	5 4 48	5 3 11

1923 A.D. 1329-30 B.S. *Ayanamsa* 22° 46′ 58″ CONDENSED

Date	Beng. Date		Nirayana Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 7	23	9	5	26	53	6	21	28	10	27	1	8	23	24	7	10	30	9	10	55	9	14	59
14	30	9	5	27	7	6	22	28	11	2	9	9	0	32	7	15	44	9	19	24	9	21	32
21	7	10	5	27	16	6	23	23	11	7	17	0	7	40	7	21	41	9	22	4	9	20	29
28	14	10	5	27	20	6	24	11	11	12	23	9	14	47	7	28	10	9	16	16	9	12	33
Feb. 4	21	10	5	27	18	6	24	51	11	17	28	9	21	53	8	5	5	9	8	32	9	6	52
11	28	10	5	27	11	6	25	24	11	22	32	9	28	58	8	12	18	9	6	31	9	7	27
18	6	11	5	26	59	6	25	48	11	27	34	10	6	2	8	19	47	9	9	54	9	12	26
25	13	11	5	26	43	6	26	3	0	2	35	10	13	5	8	27	27	9	16	30	9	19	58
Mar. 4	20	11	5	26	22	6	26	9	0	7	34	10	20	7	9	5	16	9	25	1	9	29	4
11	27	11	5	25	57	6	26	6	0	12	31	10	27	7	9	13	13	10	4	49	10	9	21
18	4	12	5	25	30	6	25	54	0	17	26	11	4	5	9	21	15	10	15	42	10	20	40
25	11	12	5	24	59	6	25	33	0	22	19	11	11	2	9	29	22	10	27	36	11	3	1
Apr. 1	18	12	5	24	28	6	25	4	0	27	11	11	17	57	10	7	33	11	10	34	11	16	27
8	25	12	5	23	55	6	24	27	1	2	0	11	24	51	10	15	47	11	24	35	0	0	51
15	2	1	5	23	23	6	23	44	1	6	48	0	1	43	10	24	4	0	9	14	0	15	25
22	9	1	5	22	52	6	22	55	1	11	34	0	8	33	11	2	23	0	23	14	0	28	35
29	16	1	5	22	22	6	22	4	1	16	18	0	15	22	11	10	44	1	4	52	1	8	50
May 6	23	1	5	21	55	6	21	10	1	21	1	0	22	9	11	19	5	1	13	6	1	15	27
13	30	1	5	21	31	6	20	17	1	25	42	0	28	55	11	27	29	1	17	27	1	18	4
20	6	2	5	21	11	6	19	26	2	0	22	1	5	40	0	5	53	1	17	46	1	16	49
27	13	2	5	20	55	6	18	38	2	5	0	1	12	23	0	14	18	1	14	51	1	13	10
June 3	20	2	5	20	43	6	17	56	2	9	36	1	19	6	0	22	44	1	11	8	1	10	3
10	27	2	5	20	36	6	17	20	2	14	11	1	25	48	1	1	11	1	9	31	1	9	53
17	2	3	5	20	34	6	16	52	2	18	46	2	2	29	1	9	40	1	11	26	1	13	21
24	9	3	5	20	37	6	16	31	2	23	19	2	9	10	1	18	9	1	16	54	1	20	14
July 1	16	3	5	20	45	6	16	20	2	27	51	2	15	50	1	26	39	1	25	34	2	0	12
8	23	3	5	20	58	6	16	17	3	2	22	2	22	30	2	5	10	2	7	10	2	12	55
15	30	3	5	21	15	6	16	23	3	6	55	2	29	11	2	13	42	2	21	5	2	27	27
22	6	4	5	21	36	6	16	37	3	11	22	3	5	52	2	22	16	3	5	59	3	12	17
29	13	4	5	22	2	6	17	0	3	15	51	3	12	33	3	0	51	3	20	23	3	26	12
Aug. 5	20	4	5	22	32	6	17	31	3	20	19	3	19	15	3	9	27	4	3	35	4	8	51
12	27	4	5	23	5	6	18	10	3	24	47	3	25	58	3	18	4	4	15	30	4	20	13
19	2	5	5	23	42	6	18	56	3	29	15	4	2	41	3	26	43	4	26	9	5	0	19
26	9	5	5	24	22	6	19	48	4	3	42	4	9	26	4	5	22	5	5	29	5	9	2
Sept. 2	16	5	5	25	4	6	20	47	4	8	9	4	16	12	4	14	3	5	13	16	5	15	59
9	23	5	5	25	49	6	21	51	4	12	37	4	22	59	4	22	44	5	18	51	5	20	18
16	30	5	5	26	35	6	23	0	4	17	4	4	29	48	5	1	27	5	21	0	5	20	26
23	6	6	5	27	24	6	24	14	4	21	31	5	6	39	5	10	10	5	18	3	5	15	11
30	13	6	5	28	13	6	25	32	4	25	58	5	13	30	5	18	53	5	10	45	5	7	55
Oct. 7	20	6	5	29	4	6	26	53	5	0	25	5	20	24	5	27	37	5	6	3	5	6	29
14	27	6	5	29	55	6	28	18	5	4	53	5	27	20	6	6	21	5	9	18	5	12	43
21	4	7	6	0	46	6	29	45	5	9	21	6	4	17	6	15	6	5	18	21	5	23	2
28	11	7	6	1	37	7	1	14	5	13	49	6	11	15	6	23	50	5	29	34	6	4	33
Nov. 4	18	7	6	2	27	7	2	45	5	18	17	6	18	15	7	2	35	6	11	11	6	16	6
11	25	7	6	3	17	7	4	17	5	22	45	6	25	17	7	11	19	6	22	36	6	27	26
18	2	8	6	4	5	7	5	50	5	27	14	7	2	20	7	20	4	7	3	47	7	8	31
25	9	8	6	4	51	7	7	24	6	1	43	7	9	25	7	28	48	7	14	46	7	19	28
Dec. 2	16	8	6	5	35	7	8	57	6	6	12	7	16	30	8	7	32	7	25	38	8	0	17
9	23	8	6	6	16	7	10	30	6	10	42	7	23	37	8	16	16	8	6	26	8	11	2
16	30	8	6	6	54	7	12	2	6	15	11	8	0	44	8	24	59	8	17	3	8	21	26
23	7	9	6	7	29	7	13	32	6	19	41	8	7	51	9	3	42	8	26	55	9	0	34
30	14	9	6	8	1	7	15	1	6	24	11	8	14	59	9	12	24	9	4	21	9	5	55
Jan. 6	21	9	6	8	27	7	16	26	6	28	40	8	22	7	9	21	4	9	5	37		–	

Stationary :—Saturn—January 30 R, June 17 D; Jupiter—March 6 R, July 7 D; Mars—; Venus—; Mercury—Jan. 20 R, Feb. 10 D, May 18R June 10 D, September 16 R, October 8 D.

EPHEMERIS Śaka era 1844-45, Saṁvat 1979-80 1923 A.D.

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 7	20	9	4	20	10	5	4	17	5	18	24	6	2	29	6	16	32	7	0	31	7	14	24
14	27	9	7	28	10	8	11	46	8	25	8	9	8	15	9	21	5	10	3	38	10	15	55
21	4	10	10	27	59	11	9	52	11	21	41	0	3	29	0	15	22	0	27	26	1	9	44
28	11	10	1	22	23	2	5	23	2	18	47	3	2	34	3	16	41	4	1	3	4	15	55
Feb. 4	18	10	5	0	9	5	14	41	5	29	6	6	13	21	6	27	24	7	11	14	7	24	51
11	26	10	8	8	15	8	21	26	9	4	23	9	17	7	9	29	33	10	11	57	10	24	5
18	3	11	11	6	3	11	17	55	11	29	43	0	11	31	0	23	24	1	5	26	1	17	42
25	9	11	2	0	17	2	13	14	2	26	36	3	10	25	3	24	39	4	9	15	4	24	6
Mar. 4	16	11	5	9	5	5	24	4	6	8	54	6	23	29	7	7	45	7	21	40	8	5	14
11	24	11	8	18	27	9	1	22	9	14	1	9	26	26	10	8	40	10	20	45	11	2	42
18	1	12	11	14	35	11	26	24	0	8	12	0	20	2	1	1	57	1	13	59	2	26	14
25	8	12	2	8	45	2	21	36	3	4	50	3	18	31	4	2	39	4	17	12	5	2	7
Apr. 1	15	12	5	17	16	6	2	30	6	17	40	7	2	35	7	17	9	8	1	17	8	14	57
8	23	12	8	28	11	9	11	2	9	23	32	10	5	47	10	17	50	10	29	45	11	11	35
15	29	12	11	23	23	0	5	11	0	17	2	0	28	57	1	10	57	1	23	6	2	5	25
22	6	1	2	17	58	3	0	47	3	13	55	3	27	26	4	11	21	4	25	42	5	10	26
29	13	1	5	25	28	6	10	41	6	25	51	7	10	59	7	25	42	8	10	1	8	23	50
May 6	21	1	9	7	10	9	20	3	10	2	33	10	14	45	10	26	41	11	8	35	11	20	23
13	28	1	0	2	10	0	14	1	0	25	57	1	8	0	1	20	11	2	2	31	2	15	2
20	4	2	2	27	44	3	10	39	3	23	49	4	4	16	4	21	3	5	5	10	5	19	38
27	12	2	6	4	23	6	19	19	7	4	20	7	19	15	8	3	56	8	18	14	9	2	6
June 3	20	2	9	15	30	9	28	26	10	10	59	10	23	13	11	5	13	11	17	4	11	28	52
10	26	2	0	10	42	0	22	37	1	4	40	1	16	53	1	29	17	2	11	53	2	24	40
17	3	2	3	7	39	3	20	50	4	4	12	4	17	46	5	1	33	5	15	34	5	29	49
24	11	2	6	14	15	6	28	49	7	13	27	7	28	0	8	12	23	8	26	28	9	10	12
July 1	18	2	9	23	31	10	6	26	10	19	0	11	1	15	11	13	17	11	25	10	0	7	1
8	25	2	0	18	53	1	0	51	1	13	0	1	25	22	2	7	59	2	20	51	3	3	58
15	1	3	3	17	18	4	0	51	4	14	34	4	28	26	5	12	25	5	26	31	6	10	41
22	9	3	6	24	55	7	9	10	7	23	22	8	7	29	8	21	25	9	5	8	9	18	33
29	17	3	10	1	39	10	14	26	10	26	55	11	9	9	11	21	11	0	3	5	0	14	56
Aug. 5	23	3	0	26	50	1	8	50	1	21	1	2	3	28	2	16	12	2	29	16	3	12	39
12	30	3	3	26	21	4	10	18	4	24	27	5	8	44	5	23	5	6	7	26	6	21	44
19	8	4	7	5	55	7	19	59	8	3	52	8	17	35	9	1	5	9	14	21	9	27	23
26	15	4	10	10	10	10	22	43	11	5	3	11	17	12	11	29	11	0	11	4	0	22	56
Sept. 2	22	4	1	4	49	1	16	48	1	28	58	2	11	24	2	24	9	3	7	16	3	20	47
9	29	4	4	4	42	4	18	58	5	3	31	5	18	15	6	3	2	6	17	47	7	2	21
16	6	5	7	16	42	8	0	45	8	14	29	8	27	56	9	11	6	9	24	0	10	6	40
23	14	5	10	19	8	11	1	26	11	13	35	11	25	36	0	7	32	0	19	23	1	1	14
30	20	5	1	13	7	1	25	5	2	7	13	2	19	34	3	2	15	3	15	17	3	28	45
Oct. 7	27	5	4	12	41	4	27	3	5	11	48	5	26	51	6	12	1	6	27	9	7	12	5
14	5	6	7	26	41	8	10	54	8	24	41	9	8	3	9	21	2	10	3	43	10	15	8
21	12	6	10	28	22	11	10	27	11	22	26	0	4	21	0	16	13	0	28	5	1	9	55
28	19	6	1	21	52	2	3	52	2	16	0	2	28	20	3	10	55	3	23	50	4	7	9
Nov. 4	25	6	4	20	55	5	5	10	5	19	51	6	4	55	6	20	13	7	5	33	7	20	45
11	3	7	8	5	37	8	20	3	9	4	0	9	17	27	10	0	27	10	13	5	10	25	24
18	10	7	11	7	30	11	19	28	0	1	21	0	13	12	0	25	3	1	6	57	1	18	54
25	17	7	2	0	56	2	13	4	2	25	19	3	7	43	3	20	21	4	3	14	4	16	26
Dec. 2	24	7	5	0	2	5	14	2	5	28	28	6	13	17	6	28	22	7	13	36	7	28	46
9	2	8	8	13	42	8	28	15	9	12	21	9	25	46	10	9	3	10	21	45	11	4	6
16	9	8	11	16	12	11	28	9	0	10	0	0	21	50	1	3	43	1	15	40	1	27	45
23	15	8	2	9	56	2	22	17	3	4	46	3	17	25	4	0	16	4	13	18	4	26	35
30	22	8	5	10	9	5	24	1	6	8	10	6	22	38	7	7	19	7	22	9	8	6	59
Jan. 6	30	8	8	21	40		—			—			—			—			—			—	

Rahu (रा ☊ श्रा) on 1st of each month													
Jan. :	5	1	32	4	29	54	4	28	25	4	26	46
May :	4	25	11	4	23	32	4	21	57	4	20	19
Sept. :	4	18	40	4	17	5	4	15	26	4	13	51

1924 A.D. 1330-31 B.S. *Ayanamsa* 22° 47′ 42″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 6	21	9	6	8	27	7	16	26	6	28	40	8	22	7	9	21	4	9	5	37	9	3	22
13	28	9	6	8	50	7	17	49	7	3	10	8	29	15	9	29	43	8	28	30	8	24	42
20	6	10	6	9	8	7	19	8	7	7	40	9	6	22	10	8	21	8	21	9	8	20	5
27	13	10	6	9	21	7	20	23	7	12	9	9	13	30	10	16	56	8	20	35	8	22	7
Feb. 3	20	10	6	9	29	7	21	34	7	16	38	9	20	36	10	25	29	8	25	14	8	28	11
10	27	10	6	9	32	7	22	39	7	21	7	9	27	42	11	3	59	9	2	41	9	6	23
17	5	11	6	9	30	7	23	39	7	25	35	10	4	46	11	12	25	9	11	41	9	15	53
24	12	11	6	9	23	7	24	32	8	0	3	10	11	49	11	20	46	9	21	45	9	26	20
Mar. 2	19	11	6	9	11	7	25	18	8	4	29	10	18	51	11	29	2	10	2	41	10	7	38
9	26	11	6	8	54	7	25	56	8	8	55	10	25	52	0	7	13	10	14	30	10	19	50
16	3	12	6	8	33	7	26	27	8	13	19	11	2	50	0	15	16	10	27	14	11	2	59
23	10	12	6	8	9	7	26	49	8	17	41	11	9	47	0	23	11	11	10	54	11	16	59
30	17	12	6	7	41	7	27	2	8	22	1	11	16	43	1	0	56	11	25	8	0	1	9
Apr. 6	24	12	6	7	11	7	27	6	8	26	19	11	23	37	1	8	30	0	8	42	0	13	49
13	31	12	6	6	40	7	27	1	9	0	34	0	0	29	1	15	51	0	19	38	0	23	6
20	7	1	6	6	8	7	26	47	9	4	45	0	7	19	1	22	54	0	26	27	0	27	56
27	14	1	6	5	30	7	26	24	9	8	52	0	14	8	1	29	36	0	28	34	0	28	6
May 4	21	1	6	5	5	7	25	58	9	12	53	0	20	56	2	5	52	0	26	27	0	24	44
11	28	1	6	4	36	7	25	14	9	16	48	0	27	42	2	11	34	0	22	19	0	20	47
18	4	2	6	4	9	7	24	30	9	20	35	1	4	27	2	16	34	0	19	30	0	19	17
25	11	2	6	3	45	7	23	41	9	24	13	1	11	11	2	20	37	0	20	2	0	21	22
June 1	18	2	6	3	25	7	22	48	9	27	40	1	17	53	2	23	27	0	24	5	0	26	47
8	25	2	6	3	9	7	21	55	10	0	53	1	24	35	2	24	44	1	1	10	1	5	1
15	1	3	6	2	58	7	21	2	10	3	50	2	1	17	2	24	11	1	10	51	1	15	45
22	8	3	6	2	51	7	20	12	10	6	27	2	7	57	2	21	43	1	22	57	1	28	48
29	15	3	6	2	49	7	19	25	10	8	42	2	14	38	2	17	48	2	7	6	2	13	33
July 6	22	3	6	2	52	7	18	44	10	10	29	2	21	18	2	13	31	2	22	14	2	28	39
13	29	3	6	3	0	7	18	10	10	11	44	2	27	59	2	10	6	3	6	55	3	12	50
20	4	4	6	3	12	7	17	44	10	12	24	3	4	39	2	8	44	3	20	18	3	25	36
27	11	4	6	3	29	7	17	26	10	12	27	3	11	20	2	8	37	4	2	14	4	6	54
Aug. 3	18	4	6	3	50	7	17	16	10	11	51	3	18	2	2	10	33	4	12	43	4	16	45
10	25	4	6	4	16	7	17	16	10	10	40	3	24	45	2	13	53	4	21	39	4	24	57
17	1	5	6	4	45	7	17	25	10	9	4	4	1	28	2	18	18	4	28	43	5	1	0
24	8	5	6	5	18	7	17	43	10	7	15	4	8	13	2	23	33	5	3	11	5	4	1
31	15	5	6	5	55	7	18	9	10	5	27	4	14	59	2	29	27	5	3	50	5	2	30
Sept. 7	22	5	6	6	34	7	18	44	10	3	57	4	21	46	3	5	52	4	29	20	4	26	45
14	29	5	6	7	16	7	19	26	10	2	56	4	28	34	3	12	41	4	22	52	4	20	46
21	5	6	6	8	0	7	20	16	10	2	32	5	5	24	3	19	49	4	19	57	4	21	2
28	12	6	6	8	47	7	21	12	10	2	47	5	12	16	3	27	15	4	24	31	4	28	20
Oct. 5	19	6	6	9	35	7	22	14	10	3	40	5	19	10	4	4	53	5	4	27	5	9	27
12	26	6	6	10	24	7	23	22	10	5	8	5	26	5	4	12	43	5	16	22	5	21	35
19	2	7	6	11	14	7	24	35	10	7	7	6	3	1	4	20	42	5	28	29	6	3	30
26	9	7	6	12	4	7	25	53	10	9	32	6	10	0	4	28	50	6	10	15	6	15	10
Nov. 2	16	7	6	12	55	7	27	14	10	12	20	6	17	0	5	7	4	6	21	36	6	26	21
9	23	7	6	13	46	7	28	39	10	15	28	6	24	1	5	15	25	7	2	35	7	7	12
16	1	8	6	14	35	8	0	7	10	18	51	7	1	4	5	23	50	7	13	18	7	17	49
23	8	8	6	15	24	8	1	38	10	22	28	7	8	8	6	2	20	7	23	46	7	28	8
30	15	8	6	16	12	8	3	11	10	26	15	7	15	14	6	10	54	8	3	49	8	7	55
Dec. 7	22	8	6	16	57	8	4	45	11	0	12	7	22	20	6	19	30	8	12	53	8	16	6
14	29	8	6	17	40	8	6	21	11	4	16	7	29	27	6	28	8	8	19	13	8	20	13
21	6	9	6	18	21	8	7	57	11	8	25	8	6	34	7	6	48	8	19	6	8	16	19
28	13	9	6	18	59	8	9	33	11	12	40	8	13	43	7	15	30	8	11	3	8	7	22
Jan. 4	20	9	6	19	32	8	11	8	11	16	58	8	20	50	7	24	11	8	4	25		—	

Stationary :—Saturn—February 11 R, June 29 D; Jupiter—April 6 R, August 7D; Mars—July 24R, September 22D; Venus—June 10R, July 23D; Mercury—Jan. 4R, 24D, Apr. 27R, May 21D, Aug. 29R, Sept. 21D, Dec. 18R.

Nirayana Long. of Moon (च ☽ ५) at 5-30 P M. I.S.T.

Date	*Tithi & Month*	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 6	30 8	8 21 40	9 6 4	9 20 7	10 3 44	10 16 56	10 29 43	11 12 9
13	7 9	11 24 19	0 6 18	0 18 11	1 0 2	1 11 56	1 23 57	2 6 8
20	14 9	2 18 30	3 1 4	3 13 52	3 26 52	4 10 4	4 23 28	5 7 4
27	21 9	5 20 50	6 4 47	6 18 52	7 3 6	7 17 26	8 1 47	8 16 7
Feb. 3	28 9	9 0 20	9 14 20	9 28 5	10 11 32	10 24 38	11 7 24	11 19 53
10	5 10	0 2 6	0 14 7	0 26 2	1 7 54	1 19 49	2 1 51	2 14 4
17	12 10	2 26 31	3 9 16	3 22 18	4 5 39	4 19 16	5 3 9	5 17 12
24	19 10	6 1 24	6 15 39	6 29 55	7 14 9	7 28 18	8 12 19	8 26 13
Mar. 2	27 10	9 9 56	9 23 28	10 6 47	10 19 53	11 2 44	11 15 21	11 27 45
9	4 11	0 9 56	0 21 57	1 3 52	1 15 45	1 27 39	2 9 39	2 21 50
16	10 11	3 4 17	3 17 4	4 0 13	4 13 46	4 27 43	5 11 59	5 26 32
23	18 11	6 11 13	6 25 55	7 10 33	7 24 59	8 9 11	8 23 7	9 6 46
30	25 11	9 20 9	10 3 17	10 16 13	10 28 57	11 11 29	11 23 52	0 6 5
Apr. 6	2 12	0 18 11	1 0 9	1 12 2	1 23 54	2 5 6	2 17 44	2 29 53
13	9 12	3 12 16	3 24 59	4 8 7	4 21 42	5 5 44	5 20 14	6 5 5
20	16 12	6 20 9	7 5 16	7 20 17	8 5 3	8 19 28	9 3 28	9 17 6
27	24 12	10 0 41	10 13 17	10 25 57	11 8 25	11 20 42	0 2 52	0 14 55
May 4	1 1	0 26 53	1 8 47	1 20 39	2 2 30	2 14 23	2 26 21	3 8 28
11	7 1	3 20 49	4 3 28	4 16 30	5 0 0	5 13 59	5 28 27	6 13 21
18	14 1	6 28 32	7 13 52	7 29 8	8 14 10	8 28 49	9 13 1	9 26 45
25	22 1	10 10 2	10 22 56	11 5 31	11 17 50	11 29 59	0 12 0	0 23 56
June 1	29 1	1 5 49	1 17 41	1 29 33	2 11 26	2 23 24	3 5 26	3 17 38
8	6 2	4 0 1	4 12 41	4 25 41	5 9 5	5 22 55	6 7 14	6 21 58
15	13 2	7 7 1	7 22 16	8 7 32	8 22 37	9 7 23	9 21 43	10 5 35
22	21 2	10 18 58	11 1 57	11 14 33	11 26 52	0 8 59	0 20 56	1 2 50
29	28 2	1 14 41	1 26 33	2 8 28	2 20 27	3 2 32	3 14 45	3 27 8
July 6	4 3	4 9 42	4 22 30	5 5 35	5 19 0	6 2 46	6 16 54	7 1 22
13	12 3	7 16 8	8 1 4	8 16 3	9 0 57	9 15 36	9 29 54	10 13 48
20	19 3	10 27 16	11 10 19	11 23 0	0 5 22	0 17 30	0 29 28	1 11 21
27	26 3	1 23 13	2 5 7	2 17 6	2 29 13	3 11 30	3 23 58	4 6 37
Aug. 3	3 4	4 19 30	5 2 36	5 15 56	5 29 31	6 13 20	6 27 24	7 11 40
10	10 4	7 26 6	8 10 38	8 25 12	9 9 41	9 24 1	10 8 5	10 21 51
17	18 4	11 5 15	11 18 18	0 1 1	0 13 25	0 25 35	1 7 35	1 19 28
24	24 4	2 1 21	2 13 16	2 25 19	3 7 33	3 20 1	4 2 44	4 15 43
31	1 5	4 28 59	5 12 30	5 26 15	6 10 10	6 24 14	7 8 23	7 22 35
Sept. 7	9 5	8 6 48	8 20 59	9 5 7	9 19 9	10 3 2	10 16 43	11 0 11
14	16 5	11 13 23	11 26 18	0 8 57	0 21 20	1 3 29	1 15 29	1 27 22
21	23 5	2 9 13	2 21 8	3 3 12	3 15 29	3 28 2	4 10 56	4 24 12
28	30 5	5 7 50	5 21 48	6 6 1	6 20 24	7 4 51	7 19 17	8 3 37
Oct. 5	7 6	8 17 48	9 1 48	9 15 38	9 29 16	10 12 43	10 26 0	11 9 5
12	15 6	11 21 59	0 4 40	0 17 9	0 29 26	1 11 31	1 23 28	2 5 20
19	21 6	2 17 9	2 29 2	3 11 3	3 23 17	4 5 50	4 18 47	5 2 10
26	28 6	5 16 0	6 0 16	6 14 53	6 29 43	7 14 37	7 29 27	8 14 5
Nov. 2	6 7	8 28 27	9 12 30	9 26 13	10 9 39	10 22 50	11 5 47	11 18 32
9	13 7	0 1 7	0 13 32	0 25 48	1 7 55	1 19 55	2 1 48	2 13 37
16	20 7	2 25 26	3 7 17	3 19 15	4 1 26	4 13 54	4 26 46	5 10 6
23	27 7	5 23 55	6 8 14	6 23 0	7 8 4	7 23 18	8 8 29	8 23 29
30	4 8	9 8 9	9 22 25	10 6 16	10 19 43	11 2 49	11 15 36	11 28 9
Dec. 7	12 8	0 10 30	0 22 41	1 4 46	1 16 44	1 28 38	2 10 29	2 22 18
14	18 8	3 4 8	3 16 1	3 28 1	4 10 13	4 22 39	5 5 26	5 18 38
21	25 8	6 2 17	6 16 26	7 1 2	7 16 2	8 1 16	8 16 34	9 1 46
28	3 9	9 16 41	10 1 13	10 15 18	10 28 56	11 12 7	11 24 56	0 7 26
Jan. 4	10 9	0 19 41	—	—	—	—	—	—

Rahu (रा ☊ षा) on 1st of each month

Jan. :	4 12 11	4 10 33	4 9 1	4 7 22
May :	4 5 37	4 4 8	4 2 33	4 0 55
Sept. :	3 29 16	3 27 41	3 26 2	3 24 27

1925 A.D. 1331-32 B.S. *Ayanamsa* 22°48′28″ CONDENSED

Date	Beng. Date	*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
		शा ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ Wednes
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 4	20 9	6 20 32	8 11 8	11 16 58	8 20 50	7 24 11	8 4 25	8 3 58
11	27 9	6 20 2	8 12 44	11 21 21	8 27 58	8 2 55	8 5 17	8 7 21
18	5 10	6 20 29	8 14 18	11 25 45	9 5 5	8 11 38	8 11 4	8 14 22
25	12 10	6 20 50	8 15 51	0 0 12	9 12 13	8 20 23	8 19 15	8 23 10
Feb. 1	19 10	6 21 8	8 17 21	0 4 40	9 19 20	8 29 7	8 28 41	9 2 59
8	26 10	6 21 20	8 18 48	0 9 10	9 26 25	9 7 51	9 8 58	9 13 33
15	3 11	6 21 28	8 20 13	0 13 40	10 3 30	9 16 36	9 19 54	9 24 49
22	10 11	6 21 30	8 21 34	0 18 10	10 10 33	9 25 20	10 1 35	10 6 50
Mar. 1	17 11	6 21 27	8 22 50	0 22 41	10 17 35	10 4 4	10 14 4	10 19 39
8	24 11	6 21 19	8 24 2	0 27 12	10 24 36	10 12 47	10 27 20	11 3 12
15	1 12	6 21 7	8 25 8	1 1 42	11 1 35	10 21 30	11 11 5	11 16 52
22	8 12	6 20 50	8 26 9	1 6 12	11 8 32	11 0 12	11 24 6	11 28 55
29	15 12	6 20 29	8 27 3	1 10 42	11 15 28	11 8 54	0 4 11	0 7 5
Apr. 5	22 12	6 20 4	8 27 50	1 15 12	11 22 22	10 17 35	0 9 21	0 9 51
12	29 12	6 19 37	8 28 29	1 19 41	11 29 15	11 26 15	0 9 0	0 7 28
19	6 1	6 19 7	8 29 1	1 24 10	0 6 5	0 4 55	0 4 46	0 2 42
26	13 1	6 18 36	8 29 24	1 28 38	0 12 55	0 13 34	0 0 28	11 29 29
May 3	20 1	6 18 4	8 29 37	2 3 6	0 19 43	0 22 12	11 29 16	11 29 56
10	27 1	6 17 34	8 29 42	2 7 33	0 26 29	1 0 50	0 1 51	0 3 59
17	3 2	6 17 2	8 29 33	2 11 59	1 3 14	1 9 27	0 7 38	0 10 49
24	10 2	6 16 33	8 29 24	2 16 25	1 9 58	1 18 3	0 15 56	0 20 9
31	17 2	6 16 7	8 29 1	2 20 51	1 16 41	1 26 39	0 26 22	1 1 28
June 7	24 2	6 15 44	8 28 31	2 25 17	1 23 23	2 5 15	1 8 50	1 14 45
14	31 2	6 15 24	8 27 52	2 29 42	2 0 4	2 13 49	1 23 6	1 29 36
21	7 3	6 15 8	8 27 8	3 4 7	2 6 45	2 22 24	2 8 22	2 14 52
28	14 3	6 14 57	8 26 18	3 8 32	2 13 26	3 0 57	2 23 15	2 29 14
July 5	21 3	6 14 50	8 25 26	3 12 57	2 20 6	3 9 31	3 6 45	3 12 [illegible]
12	28 3	6 14 49	8 24 32	3 17 21	2 26 46	3 18 3	3 18 37	3 23 12
19	3 4	6 14 51	8 23 39	3 21 46	3 3 27	3 26 35	3 28 49	4 2 39
26	10 4	6 14 59	8 22 48	4 26 12	3 10 8	4 5 6	4 7 12	4 10 9
Aug. 2	17 4	6 15 12	8 22 1	4 0 37	3 16 50	4 13 36	4 13 20	4 15 6
9	24 4	6 15 28	8 21 19	4 5 3	3 23 32	4 22 5	4 16 27	4 16 30
16	31 4	6 15 50	8 20 45	4 9 29	4 0 16	5 0 32	4 15 31	4 13 7
23	7 5	6 16 15	8 20 19	4 13 56	4 7 0	5 8 59	4 10 31	4 7 50
30	14 5	6 16 45	8 20 1	4 18 24	4 13 46	5 17 23	4 4 51	4 3 38
Sept. 6	21 5	6 17 18	8 19 53	4 22 52	4 20 32	5 25 46	4 3 55	4 5 39
13	28 5	6 17 54	8 19 54	4 27 21	4 27 21	6 4 7	4 9 47	4 15 58
20	4 6	6 18 33	8 20 4	5 1 51	5 4 11	6 12 26	4 20 30	4 25 49
27	11 6	6 19 15	8 20 24	5 6 22	5 11 12	6 20 42	5 3 5	5 8 30
Oct. 4	18 6	6 19 59	8 20 52	5 10 53	5 17 55	6 28 55	5 15 44	5 21 0
11	25 6	6 20 45	8 21 29	5 15 26	5 24 50	7 7 5	5 27 50	6 2 51
18	1 7	6 21 33	8 22 14	5 20 0	6 1 46	7 15 11	6 9 22	6 14 08
25	8 7	6 22 22	8 23 7	5 24 35	6 8 44	7 23 12	6 20 22	6 24 57
Nov. 1	15 7	6 23 12	8 24 6	5 29 12	6 15 44	8 1 7	7 0 56	7 5 20
8	22 7	6 24 2	8 25 11	6 3 49	6 22 45	8 8 55	7 11 4	7 15 14
15	29 7	6 24 52	8 26 23	6 8 28	6 29 48	8 16 33	7 20 34	7 24 19
22	6 8	6 25 42	8 27 39	6 13 8	7 6 52	8 23 59	7 28 47	8 1 32
29	13 8	6 26 31	8 29 0	6 17 50	7 13 57	9 1 10	8 3 56	8 4 21
Dec. 6	20 8	6 27 20	9 0 26	6 22 33	7 21 7	9 8 1	8 2 28	7 29 14
13	27 8	6 28 6	9 1 54	6 27 17	7 28 10	9 14 26	7 23 49	7 20 25
20	5 9	6 28 51	9 3 26	7 2 3	8 5 17	9 20 16	7 18 12	7 18 21
27	12 9	6 29 34	9 5 0	7 6 50	8 12 25	9 25 22	7 20 26	7 22 59
Jan. 3	19 9	7 0 14	9 6 36	7 11 38	8 19 33	9 29 26	7 27 15	—

Stationary :—Saturn—February 22 R, July 12 D; Jupiter—May 11 R, Sept. 9 D; Mars—; Venus—; Mercury—Jan. 7D, Apr. 8 R, May 3D, Aug. 12 R, Sept. 4 D, Dec. 1 R, 22 D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M I.S.T																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 4	10	9	0	19	41	1	1	45	1	13	42	1	25	34	2	7	25	2	19	15	3	1	7
11	16	9	3	13	3	3	25	4	4	7	14	4	19	34	5	2	7	5	14	57	5	28	6
18	23	9	6	11	38	6	25	33	7	9	51	7	24	31	8	9	27	8	24	31	9	9	36
25	1	10	9	24	31	10	9	8	10	23	23	11	7	11	11	20	33	0	3	30	0	16	5
Feb. 1	8	10	0	28	21	1	10	25	1	22	19	2	4	9	2	15	57	2	27	49	3	9	46
8	15	10	3	21	51	4	4	5	4	16	30	4	29	8	5	11	58	5	25	2	6	8	21
15	22	10	6	21	55	7	5	45	7	19	50	8	4	9	8	18	40	9	3	18	9	17	58
22	29	10	10	2	35	10	17	1	11	1	11	11	14	59	11	28	25	0	11	27	0	24	7
Mar. 1	7	11	1	6	27	1	18	33	2	0	28	2	12	17	2	24	7	3	6	0	3	18	2
8	13	11	4	0	15	4	12	43	4	25	26	5	8	25	5	21	40	6	5	8	6	18	48
15	20	11	7	2	37	7	16	35	8	0	39	8	14	47	8	28	59	9	13	12	9	27	25
22	28	11	10	11	34	10	25	36	11	9	26	11	23	2	0	6	19	0	19	17	1	1	56
29	5	12	1	14	17	1	26	23	2	8	19	2	20	9	3	1	58	3	13	53	3	25	57
Apr. 5	11	12	4	8	16	4	20	53	5	3	51	5	17	9	6	0	48	6	14	43	6	28	50
12	19	12	7	13	4	7	27	21	8	11	37	8	25	48	9	9	53	9	23	52	10	7	44
19	26	12	10	21	29	11	5	4	11	18	30	0	1	44	0	14	45	0	27	30	1	10	0
26	3	1	1	22	16	2	4	19	2	16	13	2	28	2	3	9	50	3	21	44	4	3	48
May 3	10	1	4	16	8	4	28	49	5	11	54	5	25	24	6	9	19	6	23	35	7	8	7
10	17	1	7	22	48	8	7	29	8	22	5	9	6	30	9	20	42	10	4	39	10	18	22
17	25	1	11	1	52	11	15	8	11	28	13	0	11	5	0	23	45	1	6	14	1	18	31
24	2	2	2	0	38	2	12	35	2	24	25	3	6	13	3	18	0	3	29	53	4	11	56
31	8	2	4	24	15	5	6	55	5	19	59	6	3	31	6	17	31	7	1	57	7	16	43
June 7	16	2	8	1	42	8	16	44	9	1	41	9	16	26	10	0	52	10	14	59	10	28	44
14	23	2	11	12	9	11	25	16	0	8	6	0	20	43	1	3	7	1	15	20	1	27	25
21	30	2	2	9	22	2	21	13	3	3	0	3	14	47	3	26	36	4	8	30	4	20	34
28	7	3	5	2	53	5	15	31	5	28	31	6	11	59	6	25	54	7	10	16	7	25	2
July 5	14	3	8	10	5	8	25	17	9	10	27	9	25	27	10	10	9	10	24	29	11	8	24
12	22	3	11	21	53	0	4	59	0	17	45	1	0	13	1	12	27	1	24	30	2	6	25
19	29	3	2	18	15	3	0	3	3	11	50	3	23	39	4	5	33	4	17	33	4	29	44
26	5	4	5	12	7	5	24	47	6	7	46	6	21	7	7	4	53	7	19	4	8	3	38
Aug. 2	13	4	8	18	31	9	3	36	9	18	45	10	3	50	10	18	40	11	3	10	11	17	15
9	20	4	0	0	52	0	14	3	0	26	50	1	9	16	1	21	26	2	3	24	2	15	15
16	27	4	2	27	2	3	8	49	3	20	39	4	2	34	4	14	37	4	26	50	5	9	13
23	4	5	5	21	48	6	4	47	6	17	42	7	1	3	7	14	43	7	28	42	8	12	59
30	11	5	8	27	33	9	12	19	9	27	13	10	12	7	10	26	52	11	11	21	11	25	29
Sept.6	19	5	0	9	11	0	22	26	1	5	16	1	17	44	1	29	54	2	11	51	2	23	41
13	26	5	3	5	28	3	17	17	3	29	11	4	11	15	4	23	31	5	5	59	5	18	40
20	2	6	6	1	35	6	14	42	6	28	2	7	11	33	7	25	16	8	9	9	8	23	14
27	10	6	9	7	29	9	21	53	10	6	23	10	20	54	11	5	20	11	19	35	0	3	33
Oct. 4	17	6	0	17	11	1	0	24	1	13	15	1	25	44	2	7	55	2	19	52	3	1	42
11	24	6	3	13	30	3	25	21	4	7	19	4	19	30	5	1	56	5	14	40	5	27	41
18	1	7	6	10	58	6	24	30	7	8	13	7	22	5	8	6	3	8	20	4	9	4	8
25	8	7	9	18	13	10	2	20	10	16	27	11	0	32	11	14	31	11	28	22	0	11	59
Nov. 1	16	7	0	25	21	1	8	24	1	21	8	2	3	34	2	15	43	2	27	41	3	9	31
8	23	7	3	21	18	4	3	9	4	15	8	4	27	22	5	9	53	5	22	56	6	6	1
15	29	7	6	19	37	7	3	32	7	17	42	8	2	1	8	16	23	9	0	45	9	15	2
22	7	8	9	29	12	10	13	14	10	27	8	11	10	53	11	24	28	0	7	52	0	21	4
29	14	8	1	4	4	1	16	49	1	29	19	2	11	36	2	23	41	3	5	36	3	17	25
Dec. 6	21	8	3	29	12	4	11	2	4	23	0	5	5	11	5	17	41	6	0	34	6	13	51
13	28	8	6	27	34	7	11	42	7	26	11	8	10	53	8	25	42	9	10	31	9	25	12
20	5	9	10	9	40	10	23	52	11	7	47	11	21	25	0	4	45	0	17	50	1	0	41
27	13	9	1	13	18	1	25	44	2	7	58	2	20	4	3	2	1	3	13	41	3	25	39
Jan. 3	19	9	4	7	28		—			—			—			—			—			—	

Rahu (रा ☊ श्री) on 1st of each month	Jan. :	3	22	48	3	21	9	3	19	40	3	18	2
	May :	3	16	26	3	14	48	3	13	12	3	11	34
	Sept. :	3	9	55	3	8	20	3	6	42	3	5	0

Nirayana Longitudes at 5-30 P.M. I.S.T. on Sundays

Date	Beng. Date		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 3	19	9	7	0	14	9	6	36	7	11	38	8	19	33	9	29	26	7	27	15	8	0	53
10	26	9	7	0	50	9	8	14	7	16	28	8	26	41	10	2	11	8	6	6	8	10	13
17	3	10	7	1	24	9	9	53	7	21	20	9	3	49	10	3	15	8	15	55	8	20	20
24	10	10	7	1	53	9	11	32	7	26	12	9	10	57	10	2	21	8	26	21	9	0	59
31	17	10	7	2	19	9	13	11	8	1	6	9	18	3	9	29	29	9	7	19	9	12	12
Feb. 7	24	10	7	2	40	9	14	50	8	6	2	9	25	9	9	25	22	9	18	52	9	24	0
14	2	11	7	2	56	9	16	28	8	10	58	10	2	14	9	21	16	10	1	31	10	6	28
21	9	11	7	3	7	9	18	5	8	15	56	10	9	18	9	18	26	10	13	53	10	19	32
28	16	11	7	3	14	9	19	40	8	20	55	10	16	20	9	17	31	10	27	5	11	2	36
Mar. 7	23	11	7	3	16	9	21	13	8	25	55	10	23	21	9	18	33	11	9	28	11	13	57
14	30	11	7	3	12	9	22	44	9	0	56	11	0	21	9	21	13	11	18	36	11	20	50
21	7	12	7	3	4	9	24	11	9	5	58	11	7	18	9	25	10	11	21	56	11	21	23
28	14	12	7	2	51	9	25	34	9	11	1	11	14	14	10	0	5	11	19	7	11	16	45
Apr. 4	21	12	7	2	33	9	26	54	9	16	4	11	21	9	10	5	45	10	13	31	11	11	33
11	28	12	7	2	12	9	28	8	9	21	8	11	28	2	10	11	58	11	10	0	11	9	46
18	5	1	7	1	47	9	29	18	9	26	12	0	4	53	10	18	37	11	10	38	11	12	6
25	12	1	7	1	20	10	0	21	10	1	16	0	11	42	10	25	35	11	14	58	11	17	42
May 2	19	1	7	0	49	10	1	18	10	6	18	0	18	29	11	2	48	11	22	1	11	25	43
9	26	1	7	0	18	10	2	8	10	11	21	0	25	16	11	10	14	0	1	11	0	5	41
16	2	2	6	29	47	10	2	51	10	16	22	1	2	1	11	17	50	0	12	9	0	17	23
23	9	2	6	29	16	10	3	26	10	21	22	1	8	46	11	25	34	0	24	51	1	0	48
30	16	2	6	28	46	10	3	53	10	26	20	1	15	28	0	3	24	1	9	9	1	15	39
June 6	23	2	6	28	17	10	4	11	11	1	15	1	22	11	0	11	20	1	24	26	2	0	59
13	30	2	6	27	51	10	4	19	11	6	7	1	28	52	0	19	21	2	9	25	2	15	25
20	5	3	6	27	28	10	4	18	11	10	54	2	5	33	0	27	26	2	22	56	2	28	10
27	12	3	6	27	9	10	4	8	11	15	37	2	12	14	1	5	34	3	4	37	3	9	2
July 4	19	3	6	26	54	10	3	49	11	20	13	2	18	54	1	13	46	3	14	21	3	17	53
11	26	3	6	26	43	10	3	20	11	24	43	2	25	35	1	22	0	3	21	56	3	24	25
18	2	4	6	26	37	10	2	44	11	29	4	3	2	16	2	0	18	3	26	53	3	28	0
25	9	4	6	26	35	10	2	1	0	3	15	3	8	56	2	8	38	3	28	23	3	27	49
Aug. 1	16	4	6	26	38	10	1	13	0	7	14	3	15	38	2	17	1	3	25	56	3	23	52
8	23	4	6	26	46	10	0	20	0	11	0	3	22	20	2	25	27	3	20	45	3	18	38
15	30	4	6	26	59	9	29	25	0	14	29	3	29	3	3	3	55	3	16	50	3	16	35
22	5	5	6	27	16	9	28	31	0	17	39	4	5	48	3	12	25	3	17	59	3	20	21
29	12	5	6	27	37	9	27	38	0	20	27	4	12	33	3	20	58	3	25	5	3	29	37
Sept. 5	19	5	6	28	3	9	26	49	0	22	49	4	19	19	3	29	33	4	6	32	4	12	6
12	26	5	6	28	32	9	26	5	0	24	40	4	26	8	4	8	10	4	19	43	4	25	25
19	2	6	6	29	5	9	25	28	0	25	57	5	2	57	4	16	50	5	2	52	5	8	18
26	9	6	6	29	42	9	25	0	0	26	34	5	9	48	4	25	30	5	15	20	5	20	26
Oct. 3	16	6	7	0	21	9	24	40	0	26	29	5	16	41	5	4	13	5	27	2	6	1	51
10	23	6	7	1	3	9	24	30	0	25	40	5	23	35	5	12	57	6	8	5	6	12	37
17	30	6	7	1	47	9	24	30	0	24	11	6	0	32	5	21	41	6	18	30	6	22	47
24	7	7	7	2	33	9	24	39	0	22	8	6	7	29	6	0	27	6	28	18	7	2	15
31	14	7	7	3	21	9	24	59	0	19	45	6	14	28	6	9	14	7	7	13	6	10	38
Nov. 7	21	7	7	4	9	9	25	27	0	17	18	6	21	29	6	18	1	7	14	33	7	16	49
14	28	7	7	4	59	9	26	4	0	15	5	6	28	32	6	26	48	7	18	28	7	18	17
21	5	8	7	5	49	9	26	50	0	13	21	7	5	35	7	5	36	7	15	41	7	12	8
28	12	8	7	6	39	9	27	44	0	12	12	7	12	40	7	14	24	7	6	48	7	3	49
Dec. 5	19	8	7	7	29	9	28	44	0	11	43	7	19	46	7	23	12	7	2	21	7	3	6
12	26	8	7	8	17	9	29	52	0	11	53	7	26	53	8	2	0	7	5	53	7	8	54
19	4	9	7	9	5	10	1	6	0	12	40	8	4	0	8	10	48	7	13	39	7	17	35
26	11	9	7	9	51	10	2	24	0	13	59	8	11	8	8	19	36	7	23	7	7	27	25
Jan. 2	18	9	7	10	35	10	3	46	0	15	46	8	18	16	8	28	24	8	3	19		—	

Stationary :—Saturn—March 6 R, July 24 D; Jupiter—June 16 R, Oct. 14 D; Mars—Sept. 29 R. Dec. 7 D; Venus—Jan. 18 R, Feb. 28 D; Mercury—Mar. 22 R, Apr. 14 D, July 25 R, Aug. 18 D, Nov. 16 R, Dec. 5 D.

EPHEMERIS Saka era 1847-48, Samvat 1982-83 1926 A.D.

Date	*Tithi & Month*		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	19	9	4	7	28	4	19	18	5	1	16	5	13	26	5	25	51	6	8	38	6	21	48
10	26	9	7	5	26	7	19	31	8	4	1	8	18	52	9	3	57	9	19	7	10	4	11
17	4	10	10	19	3	11	3	35	11	17	43	0	1	26	0	14	46	0	27	43	1	10	22
24	11	10	1	22	44	2	4	55	2	16	56	2	28	51	3	10	42	3	22	30	4	4	19
31	18	10	4	16	10	4	28	5	5	10	7	5	22	19	6	4	45	6	17	27	7	0	30
Feb. 7	24	10	7	13	56	7	27	48	8	12	6	8	26	48	9	11	50	9	27	3	10	12	18
14	2	11	10	27	24	11	12	12	11	26	36	0	10	32	0	23	59	1	6	59	1	19	36
21	9	11	2	1	54	2	13	58	2	25	52	3	7	41	3	19	28	4	1	16	4	13	8
28	16	11	4	25	5	5	7	9	5	19	22	6	1	41	6	14	17	6	27	4	7	10	6
Mar. 7	23	11	7	23	27	8	7	7	8	21	10	9	5	34	9	20	17	10	5	16	10	20	21
14	30	11	11	5	24	11	20	15	0	4	45	0	18	48	1	2	23	1	15	29	1	28	10
21	8	*12*	2	10	29	2	22	33	3	4	26	3	16	13	3	28	1	4	9	51	4	21	48
28	14	*12*	5	3	54	5	16	10	5	28	38	6	11	16	6	24	6	7	7	7	7	20	19
Apr. 4	21	*12*	8	3	45	8	17	24	9	1	18	9	15	28	9	29	52	10	14	28	10	29	11
11	29	*12*	11	13	54	11	28	29	0	12	49	0	26	47	1	10	20	1	23	28	2	6	11
18	6	12	2	18	33	3	0	39	3	12	34	3	24	23	4	6	12	4	18	6	5	0	8
25	13	12	5	12	22	5	24	50	6	7	33	6	20	30	7	3	41	7	17	4	8	0	37
May 2	20	12	8	14	19	8	28	10	9	12	8	9	26	14	10	10	26	10	24	43	11	9	1
9	27	12	11	23	16	0	7	26	0	21	23	1	5	3	1	18	24	2	1	23	2	14	3
16	5	1	2	26	24	3	8	30	3	20	26	4	2	17	4	14	8	4	26	3	5	8	9
23	11	1	5	20	28	6	3	4	6	15	58	6	29	11	7	12	42	7	26	28	8	10	26
30	18	1	8	24	33	9	8	46	9	23	0	10	7	14	10	21	26	11	5	33	11	19	34
June 6	26	1	0	3	27	0	17	10	1	0	40	1	13	56	1	26	56	2	9	40	2	22	9
13	3	2	3	4	24	3	16	27	3	28	22	4	10	13	4	22	4	5	4	0	5	16	6
20	10	2	5	28	26	6	11	4	6	24	3	7	7	24	7	21	8	8	5	13	8	19	34
27	17	2	9	4	7	9	18	45	10	3	23	10	17	55	11	2	17	11	16	26	0	0	20
July 4	24	2	0	13	58	0	27	20	1	10	27	1	23	20	2	5	59	2	18	25	3	0	41
11	2	3	3	12	46	3	24	44	4	6	37	4	18	27	5	0	17	5	12	13	5	24	17
18	8	3	6	6	35	6	19	10	7	2	7	7	15	28	7	29	15	8	13	27	8	28	2
25	15	3	9	12	53	9	27	55	10	12	56	10	27	51	11	12	29	11	26	48	0	10	45
Aug. 1	23	3	0	24	18	1	7	29	1	20	21	2	2	57	2	15	19	2	27	31	3	9	34
8	30	3	3	21	31	4	3	23	4	15	14	4	27	4	5	8	56	5	20	52	6	2	57
15	7	4	6	15	13	6	27	45	7	10	36	7	23	50	8	7	31	8	21	39	9	6	14
22	14	4	9	21	11	10	6	23	10	21	40	11	6	51	11	21	47	0	6	20	0	20	25
29	22	4	1	4	2	1	17	12	1	29	58	2	12	25	2	24	38	3	6	39	3	18	34
Sept. 5	28	4	4	0	26	4	12	15	4	24	6	5	5	59	5	17	56	5	29	58	6	12	7
12	5	5	6	24	26	7	6	59	7	19	47	8	2	55	8	16	27	9	0	24	9	14	47
19	12	5	9	29	35	10	14	41	10	29	57	11	15	12	0	0	15	0	14	57	0	29	11
26	20	5	1	12	55	1	26	10	2	8	58	2	21	25	3	3	34	3	15	33	3	27	24
Oct. 3	27	5	4	9	14	4	21	4	5	2	57	5	14	56	5	27	1	6	9	13	6	21	34
10	3	6	7	4	4	7	16	45	7	29	39	8	12	48	8	26	15	9	10	3	9	24	12
17	11	6	10	8	42	10	23	29	11	8	28	11	23	29	0	8	23	0	23	1	1	7	16
24	19	6	1	21	3	2	4	22	2	17	15	2	29	45	3	11	58	3	23	57	4	5	50
31	25	6	4	17	39	4	29	31	5	11	29	5	23	34	6	5	49	6	17	15	7	0	52
Nov. 7	2	7	7	13	40	7	26	39	8	9	50	8	23	12	9	6	46	9	20	34	10	4	35
14	9	7	10	18	50	11	3	15	11	17	48	0	2	23	0	16	53	1	1	11	1	15	12
21	17	7	1	28	52	2	12	9	2	25	3	3	7	36	3	19	51	4	1	54	4	13	48
28	24	7	4	25	40	5	7	33	5	19	32	6	1	42	6	14	5	6	26	42	7	9	35
Dec. 5	30	7	7	22	44	8	6	7	8	19	43	9	3	29	9	17	25	10	1	27	10	15	34
12	8	8	10	29	45	11	13	56	11	28	7	0	12	13	0	26	13	1	10	2	1	23	38
19	15	8	2	6	59	2	20	3	3	2	49	3	15	20	3	27	35	4	9	39	4	21	35
26	22	8	5	3	27	5	15	20	5	27	19	6	9	28	6	21	52	7	4	34	7	17	35
Jan. 2	29	8	8	1	0		—			—			—			—			—			—	

Rahu (रा ☊ श्रा) on 1st of each month				
Jan. :	3 3 28	3 1 49	3 0 20	2 28 42
May :	2 27 7	2 25 27	2 23 52	2 22 13
Sept. :	2 20 35	2 18 59	2 17 21	2 15 46

1927 A.D. 1333-34 B.S. *Ayanamsa* 22° 50' 3" CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श	♄	श	बृ	♃	बृ	म	♂	म	र	☉	र	शु	♀	शु	बु	☿	बु	☿ Wednes.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 2	18	9	7	10	35	10	3	46	0	15	46	8	18	16	8	28	24	8	3	19	8	7	49
9	25	9	7	11	17	10	5	13	0	17	57	8	25	24	9	7	11	8	13	55	8	18	34
16	2	10	7	11	56	10	6	44	0	20	28	9	2	32	9	15	58	8	24	53	8	29	42
23	9	10	7	12	32	10	8	18	0	23	15	9	9	40	9	24	45	9	6	16	9	11	17
30	16	10	7	13	4	10	9	54	0	26	16	9	16	46	10	3	30	9	18	0	9	23	24
Feb. 6	23	10	7	13	33	10	11	32	0	29	29	9	23	53	10	12	15	10	0	32	10	5	56
13	1	11	7	13	57	10	13	12	1	2	52	10	0	58	10	20	58	10	13	3	10	18	22
20	8	11	7	14	17	10	14	53	1	6	23	10	8	1	10	29	41	10	24	48	10	23	54
27	15	11	7	14	33	10	16	34	1	10	1	10	15	4	11	8	21	11	2	53	11	4	25
Mar. 6	22	11	7	14	43	10	18	15	1	13	44	10	22	5	11	17	0	11	4	19	11	2	44
13	29	11	7	14	49	10	19	56	1	17	33	10	29	5	11	25	37	10	29	18	10	26	20
20	6	12	7	14	50	10	21	37	1	21	26	11	6	3	0	4	11	10	25	14	10	21	43
27	13	12	7	14	46	10	23	16	1	25	21	11	12	59	0	12	43	10	21	5	10	21	36
Apr. 3	20	12	7	14	37	10	24	53	1	29	20	11	19	54	0	21	12	10	23	27	10	25	33
10	27	12	7	14	23	10	26	29	2	3	22	11	26	47	0	29	33	10	29	8	11	2	20
17	4	1	7	14	5	10	28	2	2	7	26	0	3	39	1	8	0	11	7	9	11	11	9
24	11	1	7	13	44	10	29	32	2	11	31	0	10	29	1	16	19	11	16	56	11	21	38
May 1	18	1	7	13	19	11	0	58	2	15	38	0	17	17	1	24	33	11	28	14	0	3	32
8	25	1	7	12	51	11	2	21	2	19	47	0	24	4	2	2	43	0	11	2	0	16	58
15	1	2	7	12	21	11	3	39	2	23	57	1	0	49	2	10	47	0	25	16	1	1	43
22	8	2	7	11	51	11	4	53	2	28	9	1	7	34	2	18	45	1	10	28	1	17	0
29	15	2	7	11	19	11	6	1	3	2	21	1	14	17	2	26	37	1	25	25	2	1	25
June 5	22	2	7	10	49	11	7	3	3	6	35	1	21	0	3	4	20	2	8	51	2	13	58
12	29	2	7	10	19	11	7	58	3	10	49	1	27	41	3	11	53	2	20	10	2	24	20
19	4	3	7	9	51	11	8	46	3	15	5	2	4	22	3	19	14	2	29	13	3	2	19
26	11	3	7	9	25	11	9	26	3	19	22	2	11	3	3	26	21	3	5	41	3	7	33
July 3	18	3	7	9	3	11	9	59	3	23	40	2	17	43	4	3	10	3	9	3	3	9	23
10	25	3	7	8	44	11	10	22	3	27	59	2	24	24	4	9	38	3	8	45	3	7	31
17	1	4	7	8	29	11	10	36	4	2	19	3	1	4	4	15	36	3	5	58	3	3	6
24	8	4	7	8	19	11	10	41	4	6	40	3	7	45	4	21	0	3	0	39	2	29	25
31	15	4	7	8	12	11	10	35	4	11	1	3	14	26	4	25	36	2	28	57	2	29	41
Aug. 7	22	4	7	8	11	11	10	21	4	15	25	3	21	8	4	29	12	3	2	11	3	5	9
14	29	4	7	8	14	11	9	57	4	19	50	3	27	51	5	1	29	3	10	26	3	15	15
21	4	5	7	8	22	11	9	25	4	24	16	4	4	35	5	2	8	3	22	30	3	28	19
28	11	5	7	8	35	11	8	45	4	28	44	4	11	20	5	0	53	4	6	15	4	12	10
Sept. 4	18	5	7	8	53	11	7	58	5	3	14	4	18	6	4	27	51	4	19	53	4	25	29
11	25	5	7	9	15	11	7	6	5	7	45	4	24	54	4	23	42	5	2	42	5	7	54
18	1	6	7	9	41	11	6	11	5	12	17	5	1	43	4	19	38	5	14	36	5	19	26
25	8	6	7	10	10	11	5	15	5	16	52	5	8	34	4	16	53	5	25	40	6	0	10
Oct. 2	15	6	7	10	44	11	4	20	5	21	28	5	15	27	4	16	1	6	5	57	6	10	7
9	22	6	7	11	20	11	3	28	5	26	6	5	22	21	4	17	2	6	15	24	6	19	8
16	29	6	7	12	1	11	2	41	6	0	46	5	29	16	4	19	42	6	23	43	6	26	46
23	6	7	7	12	42	11	2	0	6	5	28	6	6	14	4	23	41	7	0	6	7	1	50
30	13	7	7	13	26	11	1	27	6	10	12	6	13	13	4	28	41	7	2	42	7	1	54
Nov 6	20	7	7	14	12	11	1	4	6	14	58	6	20	14	5	4	26	6	28	40	6	24	58
13	27	7	7	15	0	11	0	50	6	19	46	6	27	16	5	10	48	6	19	56	6	17	27
20	4	8	7	15	49	11	0	46	6	24	36	7	4	19	5	17	38	6	16	46	6	18	4
27	11	8	7	16	37	11	0	52	6	29	28	7	11	24	5	24	51	6	21	32	6	24	58
Dec. 4	18	8	7	17	28	11	1	8	7	4	22	7	18	30	6	2	20	7	0	12	7	4	25
11	25	8		18	18	11	1	34	7	9	19	7	25	36	6	10	3	7	10	16	7	14	45
18	2	9	7	19	7	11	2	9	7	14	17	8	2	43	6	17	58	7	20	49	7	25	25
25	9		7	19	55	11	2	53	7	19	18	8	9	51	6	26	2	8	1	35	8	6	16
Jan. 1	16		7	20	43	11	3	45	7	24	20	8	16	59	7	4	12	8	12	34		—	

Stationary :—Saturn—March 18 R, August 6 D; Jupiter—July 25 R, November 20 D; Mars—; Venus—August 20 R, October 3 D; Mercury—March 4 R, 27 D, July 6 R, 31 D, October 30 R, November 19 D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च० स्प०) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 2	29	8	8	1	0	8	15	44	8	28	46	9	13	2	9	27	27	10	11	56	10	26	21
9	6	9	11	10	45	11	24	56	0	8	57	0	22	45	1	6	19	1	19	41	2	2	50
16	14	9	2	15	47	2	28	31	3	11	3	3	23	24	4	5	34	4	17	36	4	29	33
23	20	9	5	11	24	5	23	16	6	5	13	6	17	19	6	29	39	7	12	17	7	25	19
30	27	9	8	8	46	8	22	39	9	6	57	9	21	36	10	6	28	10	21	26	11	6	21
Feb. 6	5	10	11	21	4	0	5	29	0	19	34	1	3	17	1	16	40	1	29	44	2	12	34
13	12	10	2	25	10	3	7	35	3	19	51	4	2	0	4	14	3	4	26	0	5	7	54
20	19	10	5	19	46	6	1	38	6	13	34	6	25	38	7	7	54	7	20	27	8	3	22
27	25	10	8	16	42	9	0	32	9	14	50	9	29	36	10	14	41	10	29	58	11	15	13
Mar. 6	3	11	0	0	18	0	15	2	0	29	20	1	13	10	1	26	35	2	9	35	2	22	16
13	10	11	3	4	41	3	16	54	3	28	59	4	10	58	4	22	54	5	4	47	5	16	40
20	17	11	5	28	33	6	10	28	6	22	28	7	4	34	7	16	51	7	29	22	8	12	12
27	24	11	8	25	26	9	9	6	9	23	15	10	7	52	10	22	52	11	8	7	11	23	27
Apr. 3	1	12	0	8	41	0	23	36	1	8	7	1	22	8	2	5	40	2	18	45	3	1	27
10	9	12	3	13	51	3	26	0	4	8	0	4	19	55	5	1	47	5	13	39	5	25	33
17	15	12	6	7	30	6	19	32	7	1	40	7	13	55	7	26	21	8	8	59	8	21	52
24	22	12	9	5	5	9	18	40	10	2	39	10	17	1	11	1	45	11	16	44	0	1	50
May 1	30	12	0	16	54	1	1	45	1	16	16	2	0	22	2	14	1	2	27	12	3	9	59
8	7	1	3	22	26	4	4	38	4	16	38	4	28	32	5	10	24	5	22	17	6	4	14
15	14	1	6	16	17	6	28	28	7	10	48	7	23	18	8	6	0	8	18	54	9	2	2
22	21	1	9	15	25	9	29	4	10	12	59	10	27	11	11	11	38	11	26	14	0	10	56
29	28	1	0	25	37	1	10	9	1	24	27	2	8	25	2	22	0	3	5	12	3	18	2
June 5	6	2	4	0	33	4	12	47	4	24	50	5	6	45	5	18	38	6	0	33	6	12	33
12	12	2	6	24	42	7	7	2	7	19	35	8	2	23	8	15	25	8	28	42	9	12	13
19	19	2	9	25	56	10	9	50	10	23	53	11	8	4	11	22	20	0	6	38	0	20	55
26	27	2	1	5	8	1	19	14	2	3	7	2	16	47	3	0	9	3	13	13	3	26	0
July 3	4	3	4	8	29	4	20	44	5	2	47	5	14	43	5	26	36	6	8	31	6	20	32
10	11	3	7	2	44	7	15	10	7	27	54	8	10	57	8	24	20	9	8	1	9	21	59
17	18	3	10	6	9	10	20	27	11	4	48	11	19	8	0	3	23	0	17	31	1	1	31
24	26	3	1	15	21	1	29	0	2	12	28	2	25	44	3	8	47	3	21	37	4	4	13
31	3	4	4	16	35	4	28	46	5	10	48	5	22	42	6	4	34	6	16	27	6	28	26
Aug. 7	9	4	7	10	36	7	23	4	8	5	51	8	19	3	9	2	39	9	16	40	10	1	2
14	16	4	10	15	39	11	0	24	11	15	9	11	29	47	0	14	12	0	28	22	1	12	14
21	24	4	1	25	50	2	9	11	2	22	18	3	5	12	3	17	55	4	0	28	4	12	50
28	1	5	4	25	4	5	7	8	5	19	5	6	0	57	6	12	46	6	24	37	7	6	34
Sept. 4	8	5	7	18	42	8	1	6	8	13	51	8	27	3	9	10	43	9	24	51	10	9	27
11	15	5	10	24	22	11	9	29	11	24	37	0	9	36	0	24	18	1	8	38	1	22	35
18	23	5	2	6	8	2	19	21	3	2	15	3	14	55	3	27	23	4	9	41	4	21	51
25	30	5	5	3	54	5	15	51	5	27	44	6	9	34	6	21	23	7	3	14	7	15	11
Oct. 2	6	6	7	27	17	8	9	38	8	22	19	9	5	25	9	18	59	10	3	3	10	17	36
9	13	6	11	2	34	11	17	49	0	3	8	0	18	22	1	3	21	1	17	56	2	2	4
16	21	6	2	15	45	2	29	0	3	11	53	3	24	27	4	6	47	4	18	56	5	0	57
23	28	6	5	12	52	5	24	45	6	6	35	6	18	26	7	0	18	7	12	14	7	24	16
30	5	7	8	6	27	8	18	51	9	1	32	9	14	33	9	27	59	10	11	52	10	26	12
Nov. 6	12	7	11	10	56	11	25	59	0	11	12	0	26	26	1	11	29	1	26	13	2	10	32
13	20	7	2	24	24	3	7	48	3	20	47	4	3	25	4	15	44	4	27	50	5	9	47
20	26	7	5	21	39	6	3	29	6	15	20	6	27	14	7	9	13	7	21	18	8	3	33
27	3	8	8	15	57	8	28	33	9	13	24	9	24	31	10	7	56	10	21	41	11	5	46
Dec. 4	10	8	11	20	10	0	4	49	0	19	40	1	4	34	1	19	24	2	4	2	2	18	21
11	18	8	3	2	18	3	15	49	3	28	56	4	11	40	4	24	3	5	6	11	5	18	9
18	25	8	6	0	0	6	11	49	6	23	41	7	5	39	7	17	46	8	0	4	8	12	35
25	1	9	8	25	19	9	8	17	9	21	29	10	4	54	10	18	31	11	2	19	11	16	19
Jan. 1	9	9	0	0	28		—			—			—			—			—			—	

Rahu (रा० स्प०) on 1st of each month	Jan. : 2 14 7	2 12 29	2 10 58	2 9 21
	May : 2 7 46	2 6 7	2 4 32	2 2 54
	Sept. : 2 1 14	1 29 39	1 28 0	1 26 25

1928.A.D. 1334-35 B.S. *Ayanamsa* 22 50 54 CONDENSED

Nirayana Longitudes at 5-30 P.M. I.S.T. on Sundays

Date	Beng. Date		শ	♄	নি	বৃ	♃	হ	ম	♂	ল	র	☉	বি	শু	♀	ক্র	বু	☿	ধ	☿ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	16	9	7	20	43	11	3	45	7	24	20	8	16	59	7	4	12	8	12	34	8	17	20
8	23	9	7	21	28	11	4	44	7	29	25	8	24	7	7	12	29	8	23	48	8	28	43
15	1	10	7	22	12	11	5	50	8	4	32	9	1	15	7	20	50	9	5	22	9	10	26
22	8	10	7	22	53	11	7	3	8	9	40	9	8	23	7	29	15	9	17	17	9	22	27
29	15	10	7	23	31	11	8	20	8	14	51	9	15	30	8	7	42	9	29	15	10	4	10
Feb. 5	22	10	7	24	6	11	9	43	8	20	3	9	22	36	8	16	12	10	10	8	10	13	49
12	29	10	7	24	37	11	11	9	8	25	17	9	29	41	8	24	43	10	17	0	10	17	55
19	6	11	7	25	5	11	12	40	9	0	32	10	6	45	9	3	16	10	16	38	10	14	9
26	13	11	7	25	28	11	14	13	9	5	49	10	13	48	9	11	50	10	9	54	10	6	55
Mar. 4	20	11	7	25	47	11	15	49	9	11	7	10	20	50	9	20	25	10	4	10	10	3	17
11	27	11	7	26	2	11	17	37	9	16	26	10	27	50	9	29	0	10	3	36	10	4	49
18	5	12	7	26	12	11	19	6	9	21	47	11	4	48	10	7	36	10	7	27	10	10	4
25	12	12	7	26	16	11	20	47	9	27	8	11	11	45	10	16	12	10	14	12	10	17	44
Apr. 1	19	12	7	26	16	11	22	28	10	2	29	11	18	40	10	24	48	10	22	54	10	27	6
8	26	12	7	26	11	11	24	10	10	7	51	11	25	33	11	3	24	11	3	5	11	7	51
15	2	1	7	26	2	11	25	51	10	13	13	0	2	25	11	12	0	11	14	34	11	19	53
22	9	1	7	25	47	11	27	32	10	18	34	0	9	15	11	20	35	11	27	21	0	3	14
29	16	1	7	25	29	11	29	12	10	23	55	0	16	4	11	29	11	0	11	26	0	17	48
May 6	23	1	7	25	7	0	0	50	10	29	16	0	22	51	0	7	46	0	26	27	1	2	55
13	30	1	7	24	42	0	2	26	11	4	35	0	29	37	0	16	22	1	11	17	1	17	12
20	6	2	7	24	14	0	4	1	11	9	53	1	6	21	0	24	57	1	24	29	1	29	25
27	13	2	7	23	45	0	5	32	11	15	9	1	13	5	1	3	32	2	5	15	2	9	2
June 3	20	2	7	23	14	0	7	1	11	20	23	1	19	47	1	12	7	2	13	16	2	15	48
10	27	2	7	22	43	0	8	26	11	25	34	1	26	29	1	20	42	2	18	13	2	19	16
17	3	3	7	22	12	0	9	47	0	0	43	2	3	10	1	29	18	2	19	38	2	19	7
24	10	3	7	21	43	0	11	3	0	5	48	2	9	51	2	7	54	2	17	32	2	15	53
July 1	17	3	7	21	15	0	12	14	0	10	50	2	16	31	2	16	30	2	13	31	2	11	58
8	24	3	7	20	50	0	13	20	0	15	47	2	23	12	2	25	6	2	10	39	2	10	27
15	31	3	7	20	28	0	14	19	0	20	41	2	29	52	3	3	43	2	11	24	2	13	4
22	6	4	7	20	9	0	15	12	0	25	29	3	6	33	3	12	20	2	16	33	2	20	4
29	13	4	7	19	55	0	15	57	1	0	11	3	13	14	3	20	57	2	25	50	3	0	56
Aug. 5	20	4	7	19	45	0	16	34	1	4	47	3	19	56	3	29	35	3	8	28	3	14	28
12	27	4	7	19	40	0	17	3	1	9	16	3	26	39	4	8	13	3	22	40	3	28	48
19	3	5	7	19	39	0	17	23	1	13	38	4	3	23	4	16	51	4	6	46	4	12	32
26	10	5	7	19	43	0	17	33	1	17	51	4	10	8	4	25	29	4	19	55	4	25	13
Sept. 2	17	5	7	19	52	0	17	33	1	21	54	4	16	54	5	4	8	5	2	0	5	6	52
9	24	5	7	20	6	0	17	24	1	25	47	4	23	41	5	12	45	5	13	6	5	17	33
16	31	5	7	20	24	0	17	5	1	29	27	5	0	30	5	21	23	5	23	13	5	27	15
23	7	6	7	20	46	0	16	37	2	2	52	5	7	21	6	0	1	6	2	17	6	5	47
30	14	6	7	21	13	0	16	0	2	6	2	5	14	13	6	8	38	6	9	57	6	12	36
Oct. 7	21	6	7	21	42	0	15	15	2	8	52	5	21	6	6	17	14	6	15	16	6	16	26
14	28	6	7	22	16	0	14	24	2	11	21	5	28	1	6	25	50	6	16	28	6	15	5
21	4	7	7	22	53	0	13	30	2	13	25	6	4	59	7	4	25	6	11	21	6	7	38
28	11	7	7	23	33	0	12	33	2	14	59	6	11	57	7	13	0	6	3	9	6	1	16
Nov. 4	18	7	7	24	15	0	11	37	2	16	1	6	18	58	7	21	34	6	1	22	6	3	12
11	25	7	7	25	0	0	10	42	2	16	25	6	26	0	8	0	7	6	7	17	6	11	7
18	2	8	7	25	46	0	9	51	2	16	8	7	3	3	8	8	39	6	16	49	6	21	19
25	9	8	7	26	34	0	9	7	2	15	9	7	10	7	8	17	10	6	27	28	7	2	8
Dec. 2	16	8	7	27	22	0	8	30	2	13	29	7	17	13	8	25	38	7	8	23	7	13	5
9	23	8	7	28	12	0	8	2	2	11	14	7	24	19	9	4	4	7	19	20	7	24	2
16	1	9	7	29	2	0	7	43	2	8	36	8	1	27	9	12	27	8	0	19	8	5	3
23	8	9	7	29	51	0	7	34	2	5	51	8	8	34	9	20	46	8	11	25	8	16	13
30	15	9	8	0	40	0	7	36	2	3	15	8	15	42	9	29	0	8	22	42	8	27	35
Jan. 6	22	9	8	1	28	0	7	48	2	1	3	8	22	50	10	7	8	9	4	8		–	

Stationary :—Saturn—March 29 R, August 17 D; Jupiter—August 30 R, December 26 D; Mars—November 12 R; Venus—; Mercury—Feb. 16 R, March 9 D, June 17 R, July 11 D, October 13 R, November 2 D.

Date	*Tithi* & *Month*	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 P.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 1	9 9	0 0 28	0 14 46	0 29 8	1 13 33	1 27 56	2 12 12	2 26 16
8	16 9	3 10 4	3 23 33	4 6 40	4 19 27	5 1 54	5 14 5	5 26 3
15	23 9	6 7 55	6 19 44	7 1 37	7 13 37	7 25 50	8 8 18	8 21 3
22	30 9	9 4 8	9 17 31	10 1 10	10 15 2	10 29 3	11 13 9	11 27 18
29	7 10	0 11 27	0 25 33	1 9 37	1 23 37	2 7 31	2 21 19	3 4 58
Feb. 5	14 10	3 18 25	4 1 38	4 14 35	4 27 16	5 9 41	5 21 51	6 3 50
12	21 10	6 15 42	6 27 30	7 9 22	7 21 22	8 3 35	8 16 7	8 29 0
19	28 10	9 12 18	9 26 0	10 10 3	10 24 23	11 8 53	11 23 26	0 7 56
26	6 11	0 22 18	1 6 29	1 20 29	2 4 16	2 17 51	3 1 16	3 14 30
Mar. 4	13 11	3 27 33	4 10 26	4 23 6	5 5 34	5 17 50	5 29 55	6 11 51
11	20 11	6 23 41	7 5 28	7 17 19	7 29 17	8 11 28	8 23 58	9 6 52
18	26 11	9 20 12	10 4 1	10 18 16	11 2 54	11 17 46	0 2 44	0 17 38
25	4 12	1 2 22	1 16 59	2 0 57	2 14 46	2 28 16	3 11 29	3 24 27
Apr. 1	12 12	4 7 12	4 19 46	5 2 9	5 14 22	5 26 27	6 8 25	6 20 16
8	18 12	7 2 4	7 13 52	7 25 43	8 7 41	8 19 52	9 2 19	9 15 9
15	25 12	9 28 26	10 12 11	10 26 24	11 11 3	11 26 2	0 11 12	0 26 23
22	2 1	1 11 25	1 26 11	2 10 34	2 24 34	3 8 10	3 21 22	4 4 15
29	10 1	4 16 51	4 29 13	5 11 24	5 23 26	6 5 21	6 17 12	6 29 1
May 6	17 1	7 10 49	7 22 40	8 4 35	8 16 38	8 28 52	9 11 22	9 24 11
13	23 1	10 7 23	10 21 0	11 5 4	11 19 33	0 4 23	0 19 28	1 4 40
20	1 2	1 19 48	2 4 43	2 19 19	3 3 31	3 17 16	4 0 35	4 13 30
27	8 2	4 26 4	5 8 22	5 20 27	6 2 22	6 14 13	6 26 1	7 7 49
June 3	15 2	7 19 41	8 1 38	8 13 42	8 25 56	9 8 22	9 21 1	10 3 56
10	22 2	10 17 9	11 0 42	11 14 36	11 28 50	0 13 23	0 28 11	1 13 8
17	30 2	1 28 6	2 12 58	2 27 34	3 11 50	3 25 41	4 9 6	4 22 6
24	7 3	5 4 43	5 17 1	5 29 4	6 10 58	6 22 47	7 4 35	7 16 26
July 1	14 3	7 28 23	8 10 30	8 22 48	9 5 17	9 18 0	10 0 56	10 14 6
8	20 3	10 27 29	11 11 7	11 24 57	0 9 2	0 23 18	1 7 46	1 22 20
15	28 3	2 6 57	2 21 30	3 5 54	3 20 2	4 3 50	4 17 14	5 0 15
22	5 4	5 12 53	5 25 11	6 7 15	6 19 9	7 0 58	7 12 47	7 24 41
29	12 4	8 6 45	8 19 2	9 1 33	9 14 21	9 27 25	10 10 44	10 24 16
Aug. 5	19 4	11 7 59	11 21 50	0 5 48	0 19 51	1 3 59	1 18 10	2 2 23
12	27 4	2 16 35	3 0 44	3 14 45	3 28 34	4 12 8	4 25 22	5 8 17
19	4 4	5 20 51	6 3 8	6 15 11	6 27 4	7 8 53	7 20 42	8 2 38
26	11 4	8 14 46	8 27 9	9 9 51	9 22 54	10 6 18	10 20 0	11 3 58
Sept.2	18 4	11 18 6	0 2 20	0 16 35	1 0 49	1 14 59	1 29 4	2 13 3
9	25 4	2 26 55	3 10 40	3 24 16	4 7 42	4 20 53	5 3 51	5 16 32
16	2 5	5 28 58	6 11 9	6 23 8	7 5 0	7 16 47	7 28 35	8 10 31
23	9 5	8 22 38	9 5 2	9 17 48	10 0 58	10 14 33	10 28 32	11 12 50
30	16 5	11 27 23	0 12 3	0 26 43	1 11 17	1 25 41	2 9 53	2 23 50
Oct. 7	24 5	3 7 32	3 21 1	4 4 16	4 17 19	5 0 9	5 12 46	5 25 11
14	1 6	6 7 24	6 19 27	7 1 21	7 13 9	7 24 56	8 6 43	8 18 37
21	7 6	9 0 42	9 13 4	9 25 46	10 8 53	10 22 28	11 6 30	11 20 57
28	15 6	0 5 43	0 20 43	1 5 46	1 20 44	2 5 30	2 19 59	3 4 6
Nov. 4	22 6	3 17 52	4 1 16	4 14 21	4 27 9	5 9 41	5 22 1	6 4 10
11	29 6	6 16 11	6 28 6	7 9 55	7 21 42	8 3 29	8 15 19	8 27 14
18	6 7	9 9 20	9 21 39	10 4 17	10 17 17	11 0 42	11 14 34	11 28 53
25	13 7	0 13 37	0 28 39	1 13 52	1 29 6	2 14 12	2 28 59	3 13 24
Dec. 2	21 7	3 27 22	4 10 52	4 23 58	5 6 41	5 19 5	6 1 14	6 13 13
9	28 7	6 25 05	7 6 54	7 18 41	8 0 29	8 12 20	8 24 16	9 6 20
16	4 8	9 18 32	10 0 56	10 13 35	10 26 31	11 9 47	11 23 26	0 7 29
23	11 8	0 21 55	1 6 43	1 21 46	2 6 57	2 22 7	3 7 4	3 21 41
30	19 8	4 5 51	4 19 33	5 2 35	5 15 32	5 27 56	6 10 3	6 21 59
Jan. 6	26 8	7 3 47	—	—	—	—	—	—

Rahu (रा ☊ ग्रा) on 1st of each month

Jan. :	1 24 46	1 23 8	1 21 36	1 9 57
May :	1 18 22	1 16 43	1 15 8	1 13 30
Sept. :	1 11 51	1 10 16	1 8 36	1 7 1

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1929 A.D. 1335-36 B.S. *Ayanamsa* 22° 51′ 48″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			शा ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 6	22	9	8	1	28	0	7	48	2	1	3	8	22	50	10	7	8	9	4	8	9	9	2
13	29	9	8	2	15	0	8	10	1	29	25	8	29	59	10	15	9	9	15	26	9	20	1
20	7	10	8	3	0	0	8	41	1	28	26	9	7	6	10	23	0	9	25	28	9	28	42
27	14	10	8	3	43	0	9	21	1	28	7	9	14	13	11	0	39	10	1	15	10	1	22
Feb. 3	21	10	8	4	23	0	10	9	1	28	25	9	21	19	11	8	4	9	29	0	9	25	48
10	28	10	8	5	0	0	11	5	1	29	17	9	28	25	11	15	11	9	21	8	9	18	19
17	5	11	8	5	35	0	12	7	2	0	38	10	5	29	11	21	55	9	16	17	9	16	4
24	12	11	8	6	5	0	13	16	2	2	24	10	12	32	11	28	9	9	17	17	9	19	5
Mar. 3	19	11	8	6	32	0	14	31	2	4	32	10	19	34	0	3	45	9	22	23	9	25	24
10	26	11	8	6	55	0	15	50	2	6	58	10	26	34	0	8	32	9	29	58	10	3	44
17	3	12	8	7	13	0	17	13	2	9	39	11	3	33	0	12	15	10	9	10	10	13	29
24	10	12	8	7	26	0	18	41	2	12	33	11	10	30	0	14	34	10	19	35	10	24	24
31	17	12	8	7	35	0	20	11	2	15	39	11	17	25	0	15	8	11	1	9	11	6	27
Apr. 7	24	12	8	7	39	0	21	44	2	18	53	11	24	19	0	13	45	11	13	50	11	19	38
14	1	1	8	7	38	0	23	20	2	22	16	0	1	11	0	10	32	11	27	42	0	3	57
21	8	1	8	7	32	0	24	56	2	25	46	0	8	8	0	6	14	0	12	26	0	18	48
28	15	1	8	7	22	0	26	35	2	29	22	0	14	50	0	2	11	0	27	1	1	2	49
May 5	22	1	8	7	7	0	28	14	3	3	3	0	21	37	11	29	32	1	9	51	1	14	31
12	29	1	8	6	48	0	29	53	3	6	49	0	28	23	11	28	48	1	19	50	1	23	7
19	5	2	8	6	26	1	1	33	3	10	39	1	5	8	11	29	55	1	26	29	1	28	13
26	12	2	8	6	0	1	3	12	3	14	32	1	11	52	0	2	37	1	29	27	1	29	32
June 2	19	2	8	5	33	1	4	50	3	18	30	1	18	34	0	6	33	1	28	39	1	27	22
9	26	2	8	5	3	1	6	27	3	22	30	1	25	17	0	11	25	1	25	13	1	23	35
16	2	3	8	4	32	1	8	3	3	26	33	2	1	58	0	17	0	1	21	51	1	21	8
23	9	3	8	4	1	1	9	36	4	0	39	2	8	39	0	23	7	1	21	11	1	22	2
30	16	3	8	3	31	1	11	8	4	4	48	2	15	19	0	29	40	1	24	17	1	26	47
July 7	23	3	8	3	1	1	12	36	4	8	59	2	22	0	1	6	23	2	1	7	2	5	6
14	30	3	8	2	34	1	14	1	4	13	13	2	28	40	1	13	42	2	11	20	2	16	39
21	5	4	8	2	9	1	15	23	4	17	29	3	5	21	1	21	4	2	24	24	3	0	34
28	12	4	8	1	48	1	16	40	4	21	48	3	12	2	1	28	37	3	8	59	3	15	17
Aug. 4	19	4	8	1	30	1	17	52	4	26	9	3	18	44	2	6	19	3	23	28	3	29	23
11	26	4	8	1	16	1	18	59	5	0	32	3	25	27	2	14	10	4	6	56	4	12	20
18	2	5	8	1	7	1	20	0	5	4	58	4	2	10	2	22	7	4	19	11	4	24	5
25	9	5	8	1	2	1	20	55	5	9	26	4	8	55	3	0	11	5	0	16	5	4	40
Sept. 1	16	5	8	1	2	1	21	32	5	13	57	4	15	41	3	8	21	5	10	12	5	14	5
8	23	5	8	1	7	1	22	22	5	18	30	4	22	28	3	16	35	5	18	50	5	22	3
15	30	5	8	1	17	1	22	53	5	23	6	4	29	17	3	24	55	5	25	45	5	27	57
22	6	6	8	1	31	1	23	16	5	27	44	5	6	7	4	3	19	5	29	56	6	0	29
29	13	6	8	1	49	1	23	29	6	2	24	5	12	59	4	11	47	5	29	40	5	27	45
Oct. 6	20	6	8	2	13	1	23	32	6	7	8	5	19	53	4	20	18	5	23	41	5	20	10
13	27	6	8	2	40	1	23	26	6	11	54	5	26	48	4	28	52	5	16	26	5	15	13
20	3	7	8	3	11	1	23	9	6	16	42	6	3	45	5	7	30	5	16	8	5	18	28
27	10	7	8	3	45	1	22	44	6	21	33	6	10	43	5	16	9	5	23	7	5	27	20
Nov. 3	17	7	8	4	22	1	22	9	6	26	27	6	17	43	5	24	51	6	3	28	6	8	15
10	24	7	8	5	3	1	21	26	7	1	24	6	24	45	6	3	35	6	14	43	6	19	34
17	1	8	8	5	46	1	20	38	7	6	23	7	1	48	6	12	19	6	26	0	7	0	48
24	8	8	8	6	31	1	19	44	7	11	25	7	8	52	6	21	5	7	7	8	7	11	52
Dec. 1	15	8	8	7	17	1	18	47	7	16	29	7	15	58	6	29	52	7	18	9	7	22	51
8	22	8	8	8	5	1	17	50	7	21	36	7	23	4	7	8	40	7	29	7	8	3	50
15	29	8	8	8	54	1	16	54	7	26	45	8	0	11	7	17	27	8	10	7	8	14	50
22	7	9	8	9	44	1	16	2	8	1	57	8	7	18	7	26	15	8	21	5	8	25	43
29	14	9	8	10	33	1	15	16	8	7	11	8	14	27	8	5	4	9	1	42	9	5	54
Jan. 5	21	9	8	11	22	1	14	35	8	12	26	8	21	34	8	13	51	9	10	47	—		

Stationary :—Saturn—April 10 R, August 29 D ; Jupiter—October 5 R. ; Mars—January 27D ; Venus—Mar. 30R, May 12D ; Mercury—Jan. 30R, February 20D, May 28R, June 21D, September 26 R, October 17 D.

EPHEMERIS Śaka era 1850-51, Samvat 1985-86 1929 A.D.

Date	*Tithi* & *Month*	*Nirayana* Long. of Moon (च) ५) at 5-30 P.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 6	26 8	7 3 47	7 15 33	7 27 20	8 9 12	8 21 10	0 3 17	9 15 34
13	2 9	9 28 1	10 10 39	10 23 29	11 6 31	11 19 48	0 3 21	0 17 11
20	10 9	1 1 19	1 15 45	2 0 25	2 15 16	3 0 10	3 14 57	3 29 31
27	17 9	4 13 43	4 27 29	5 10 48	5 23 40	6 6 8	6 18 18	7 0 14
Feb. 3	24 9	7 12 3	7 23 50	8 5 39	8 17 35	8 29 41	9 12 0	9 24 33
10	1 10	10 7 17	10 20 16	11 3 26	11 16 47	0 0 18	0 13 58	0 27 48
17	8 10	1 11 48	1 25 58	2 10 16	2 24 41	3 9 8	3 23 31	4 7 44
24	16 10	4 21 42	5 5 19	5 18 33	6 1 25	6 13 55	6 26 7	7 8 6
Mar. 3	23 10	7 19 57	8 1 45	8 13 36	8 25 35	9 7 47	9 20 14	10 2 58
10	29 10	10 16 0	10 29 19	11 12 54	11 26 40	0 10 35	0 24 36	1 8 40
17	7 11	1 22 47	2 6 54	2 21 1	3 5 7	3 19 8	4 3 3	4 16 49
24	14 11	5 0 21	5 13 38	5 26 37	6 9 19	6 21 44	7 3 54	7 15 53
31	21 11	7 27 45	8 9 35	8 21 27	9 3 27	9 15 40	9 28 9	10 10 59
Apr. 7	28 11	10 24 10	11 7 44	11 21 37	0 5 46	0 20 8	1 4 36	1 19 4
14	5 12	2 3 30	2 17 49	3 1 58	3 15 56	3 29 43	4 13 16	4 26 37
21	13 12	5 9 43	5 22 37	6 5 16	6 17 42	6 29 57	7 12 1	7 23 57
28	19 12	8 5 48	8 17 37	8 29 30	9 11 30	9 23 41	10 6 9	10 18 58
May 5	26 12	11 2 10	11 15 47	11 29 48	0 14 12	0 28 52	1 13 44	1 28 38
12	4 1	2 13 27	2 28 5	3 12 27	3 26 30	4 10 13	4 23 35	5 6 40
19	11 1	5 19 28	6 2 1	6 14 22	6 26 33	7 8 36	7 20 33	8 2 25
26	18 1	8 14 15	8 26 5	9 7 59	9 20 0	10 2 11	10 14 37	10 27 21
June 2	25 1	11 10 28	11 24 0	0 7 58	0 22 23	1 7 10	1 22 13	2 7 24
9	2 2	2 22 32	3 7 30	3 22 8	4 6 21	4 20 9	5 3 30	5 16 28
16	10 2	5 29 6	6 11 28	6 23 37	7 5 37	7 17 31	7 29 22	8 11 12
23	16 2	8 23 3	9 4 57	9 16 55	9 29 0	10 11 15	10 23 42	11 6 24
30	23 2	11 19 26	0 2 51	0 16 40	1 0 56	1 15 36	2 0 36	2 15 48
July 7	1 3	3 1 3	3 16 10	4 0 59	4 15 23	4 29 18	5 12 44	5 25 43
14	8 3	6 8 18	6 20 35	7 2 39	7 14 34	7 26 34	8 8 13	8 20 4
21	15 3	9 1 59	9 13 59	9 26 6	10 8 20	10 20 44	11 3 19	11 16 6
28	22 3	11 29 9	0 12 30	0 26 12	1 10 16	1 24 42	2 9 27	2 24 27
Aug. 4	29 3	3 9 32	3 24 33	4 9 21	4 23 46	5 7 45	5 21 15	6 4 17
11	7 4	6 16 54	6 29 12	7 11 16	7 23 10	8 5 0	8 16 50	8 28 43
18	13 4	9 10 44	9 22 53	10 5 11	10 17 40	11 0 19	11 13 9	11 26 10
25	20 4	0 9 24	0 22 50	1 6 32	1 20 29	2 4 42	2 19 9	3 3 48
Sept. 1	28 4	3 18 31	4 3 13	4 17 44	5 1 58	5 15 31	5 29 18	6 12 20
8	5 5	6 24 59	7 7 19	7 19 24	8 1 20	8 13 11	8 25 3	9 7 0
15	12 5	9 19 5	10 1 22	10 13 52	10 26 37	11 9 35	11 22 46	0 6 9
22	19 5	0 19 43	1 3 26	1 17 19	2 1 20	2 15 28	2 29 43	3 14 0
29	26 5	3 28 18	4 12 32	4 26 37	5 10 29	5 24 4	6 7 19	6 20 14
Oct. 6	4 6	7 2 50	7 15 10	7 27 16	8 9 12	8 21 4	9 2 57	9 14 55
13	10 6	9 27 2	10 9 23	10 22 0	11 4 56	11 18 10	0 1 42	0 15 31
20	17 6	0 29 32	1 13 42	1 27 58	2 12 15	2 26 31	3 10 43	3 24 49
27	25 6	4 8 47	4 22 35	5 6 12	5 19 36	6 2 47	6 15 43	6 28 24
Nov. 3	2 7	7 10 31	7 23 6	8 5 10	8 17 6	8 28 58	9 10 49	9 22 45
10	9 7	10 4 51	10 17 9	10 29 46	11 12 44	11 26 6	0 9 51	0 23 59
17	16 7	1 8 25	1 23 4	2 7 49	2 22 33	3 7 9	3 21 33	4 5 40
24	23 7	4 19 29	5 3 2	5 16 17	5 29 18	6 12 5	6 24 40	7 7 4
Dec. 1	30 7	7 19 19	8 1 25	8 13 24	8 25 18	9 7 9	9 19 0	10 0 54
8	7 8	10 12 56	10 25 10	11 7 41	11 20 33	0 3 50	0 17 35	1 1 48
15	15 8	1 16 27	2 1 25	2 16 34	3 1 45	3 16 46	4 1 29	4 15 50
22	22 8	4 29 45	5 13 14	5 26 21	6 9 9	6 21 40	7 3 59	7 16 8
29	29 8	7 23 11	8 10 9	8 22 3	9 3 55	9 15 47	9 27 40	10 9 34
Jan. 5	5 9	10 21 36	—	—	—	—	—	—

Rahu (रा ८ षा) on 1st of each month					
	Jan. :	1 5 23	1 3 44	1 2 15	1 0 37
	May :	0 29 1	0 27 23	0 25 47	0 24 9
	Sept. :	0 22 30	0 20 55	0 19 17	0 17 41

1930 A.D. 1336-37 B.S *Ayanamsa* 22° 52′ 40″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ Wednes
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 5	21	9	8 11 22	1 14 35	8 12 26	8 21 34	8 13 51	9 10 47	9 13 33
12	28	9	8 12 11	1 14 4	8 17 44	8 28 42	8 22 39	9 15 20	9 14 47
19	5	10	8 12 58	1 13 42	8 23 4	9 5 49	9 1 27	9 11 29	9 7 47
26	12	10	8 13 45	1 13 30	8 28 26	9 12 56	9 10 15	9 3 2	9 0 37
Feb. 2	19	10	8 14 29	1 13 28	9 3 50	9 20 3	9 19 3	8 29 24	8 29 51
9	26	10	8 15 11	1 13 37	9 9 15	9 27 9	9 27 50	9 1 52	9 4 10
16	4	11	8 15 51	1 13 54	9 14 41	10 4 13	10 6 36	9 8 1	9 11 22
23	11	11	8 16 28	1 14 21	9 20 8	10 11 16	10 15 22	9 16 16	9 20 14
Mar. 2	18	11	8 17 1	1 14 57	9 25 36	10 18 18	10 21 7	9 25 56	10 0 15
9	25	11	8 17 31	1 15 41	10 1 4	10 25 19	11 2 51	10 6 25	10 11 15
16	2	12	8 17 57	1 16 33	10 6 33	11 2 18	11 11 34	10 17 58	10 23 13
23	9	12	8 18 19	1 17 31	10 12 1	11 9 15	11 20 15	11 0 30	11 6 12
30	16	12	8 18 36	1 18 36	10 17 30	11 16 10	11 28 56	11 14 4	11 20 10
Apr. 6	23	12	8 18 49	1 19 46	10 22 58	11 23 4	0 7 36	11 28 27	0 4 39
13	30	12	8 18 57	1 21 1	10 28 25	11 29 57	0 16 14	0 12 41	0 18 18
20	7	1	8 19 0	1 22 20	11 3 51	0 6 17	0 24 50	0 25 1	0 29 20
27	14	1	8 18 58	1 23 43	11 9 16	0 13 36	1 3 25	1 3 59	1 6 36
May 4	21	1	8 18 52	1 25 10	11 14 40	0 20 24	1 11 59	1 8 52	1 9 31
11	28	1	8 18 41	1 26 39	11 20 1	0 27 10	1 20 31	1 9 27	1 8 31
18	4	2	8 18 25	1 28 10	11 25 21	1 3 55	1 29 1	1 6 33	1 4 50
25	11	2	8 18 6	1 29 44	0 0 39	1 10 39	2 7 30	1 2 43	1 1 34
June 1	18	2	8 17 43	2 1 18	0 5 54	1 17 22	2 15 57	1 0 55	1 1 11
8	25	2	8 17 17	2 2 54	0 11 7	1 24 4	2 24 21	1 2 36	1 4 24
15	32	2	8 16 49	2 4 30	0 16 17	2 0 45	3 2 44	1 7 45	1 10 55
22	7	3	8 16 19	2 6 6	0 21 23	2 7 26	3 11 3	1 15 57	1 20 20
29	14	3	8 15 49	2 7 43	0 26 27	2 14 7	3 19 20	1 26 56	2 2 24
July 6	21	3	8 15 18	2 9 18	1 1 27	2 20 48	3 7 34	2 10 19	2 16 36
13	28	3	8 14 47	2 10 53	1 6 24	2 27 28	4 5 44	2 25 11	3 1 37
20	4	4	8 14 18	2 12 26	1 11 17	3 4 9	4 13 51	3 10 0	3 16 3
27	11	4	8 13 51	2 13 58	1 16 6	3 10 50	4 21 52	3 23 44	3 29 12
Aug. 3	18	4	8 13 27	2 15 27	1 20 50	3 17 32	4 29 48	4 6 7	4 11 0
10	25	4	8 13 6	2 16 53	1 25 30	3 24 14	5 7 38	4 17 9	4 21 28
17	32	4	8 12 49	2 18 17	2 0 6	4 0 57	5 15 20	4 26 49	5 0 30
24	7	5	8 12 35	2 19 37	2 4 36	4 7 42	5 22 54	5 4 55	5 7 48
31	14	5	8 12 27	2 20 53	2 9 1	4 14 28	6 0 17	5 10 57	5 12 39
Sept. 7	21	5	8 12 23	2 22 4	2 13 20	4 21 15	6 7 27	5 13 50	5 13 44
14	28	5	8 12 25	2 23 10	2 17 33	4 28 3	6 14 21	5 12 5	5 9 45
21	4	6	8 12 29	2 24 10	2 21 39	5 4 53	6 20 54	5 5 36	5 2 31
28	11	6	8 12 39	2 25 4	2 25 36	5 11 45	6 27 1	4 29 43	4 29 14
Oct. 5	18	6	8 12 54	2 25 51	2 29 26	5 18 38	7 2 34	5 0 57	5 3 46
12	25	6	8 13 14	2 26 30	3 3 6	5 25 33	7 7 21	5 8 57	5 13 32
19	2	7	8 13 38	2 27 0	3 6 35	6 2 30	7 11 9	5 20 5	5 25 8
26	9	7	8 14 6	2 27 22	3 9 52	6 9 28	7 13 39	6 1 55	6 6 57
Nov. 2	16	7	8 14 37	2 27 35	3 12 55	6 16 28	7 14 30	6 13 35	6 18 29
9	23	7	8 15 12	2 27 38	3 15 41	6 23 29	6 13 25	6 24 56	6 29 42
16	30	7	8 15 51	2 27 31	3 18 9	7 0 32	7 10 28	7 5 59	7 10 40
23	7	8	8 16 32	2 27 14	3 20 16	7 7 36	7 6 24	7 16 51	7 21 27
30	14	8	8 17 15	2 26 48	3 21 57	7 14 41	7 2 27	7 27 33	8 2 5
Dec. 7	21	8	8 18 0	2 26 14	3 23 9	7 21 47	6 29 50	8 8 3	8 12 25
14	28	8	8 18 48	2 25 31	3 23 49	7 28 54	6 29 11	8 17 58	8 21 48
21	5	9	8 19 36	2 24 42	3 23 52	8 6 2	7 0 28	8 26 6	8 28 21
28	12	9	8 20 25	2 23 49	3 23 16	8 13 10	7 3 22	8 29 22	8 28 11
Jan. 4	19	9	8 21 14	2 22 52	3 21 58	8 20 17	7 7 33	8 24 6	—

Stationary:—Saturn—April 22 R, September 10 D; Jupiter—Jan. 31 D, November 3 R; Mars—Dec. 19 R,; Venus—Nov. 1 R, December 1 D; Mercury—Jan. 13R, Feb. 8D, May 9R, June 8D, Sept. 9R, Oct. 1D, Dec. 28R.

EPHEMERIS Saka era 1851-52 Saṁvat 1986-87 1930 A.D.

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ द) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	5	9	10	21	36	11	3	48	11	16	14	11	28	58	0	12	6	0	25	41	1	9	45
12	12	9	1	24	18	2	9	16	2	24	32	3	9	55	3	25	13	4	10	15	4	24	52
19	20	9	5	9	1	5	22	39	6	5	49	6	18	35	7	1	1	7	13	13	7	25	15
26	27	9	8	7	10	8	19	3	9	0	54	9	12	46	9	24	40	10	6	38	10	18	40
Feb. 2	4	10	11	0	48	11	13	5	11	25	34	0	8	17	0	21	20	1	4	46	1	18	37
9	11	10	2	2	55	2	17	38	3	2	41	3	17	55	4	3	10	4	18	15	5	3	0
16	18	10	5	17	18	6	1	6	6	14	25	6	27	17	7	9	48	7	22	1	8	4	2
23	25	10	8	15	55	8	27	46	9	9	37	9	21	31	10	3	30	10	15	35	10	27	48
Mar. 2	2	11	11	10	9	11	22	39	0	5	21	0	18	15	1	1	24	1	14	51	1	28	36
9	9	11	2	12	41	2	27	6	3	11	46	3	26	37	4	11	31	4	26	20	5	10	54
16	17	11	5	25	8	6	8	37	6	22	20	7	5	19	7	17	55	8	0	13	8	12	17
23	24	11	8	24	13	9	6	5	9	17	57	9	29	54	10	11	58	10	24	11	11	6	36
30	30	11	11	19	13	0	2	2	0	15	5	0	28	20	1	11	48	1	25	28	2	9	20
Apr. 6	8	12	2	23	24	3	7	37	3	21	59	4	6	24	4	20	50	5	5	10	5	19	20
13	15	12	6	3	15	6	16	52	7	0	10	7	13	6	7	25	44	8	8	4	8	20	12
20	22	12	9	2	10	9	14	4	9	25	57	10	7	55	10	20	2	11	2	21	11	14	55
27	29	12	11	27	46	0	10	54	0	24	20	1	8	1	1	21	55	2	6	0	2	20	11
May 4	6	1	3	4	26	3	18	40	4	2	53	4	17	1	5	1	2	5	14	54	5	28	36
11	14	1	6	12	5	6	25	22	7	8	23	7	21	9	8	3	41	8	15	59	8	28	6
18	21	1	9	10	4	9	21	58	10	3	51	10	15	49	10	27	56	11	10	16	11	22	54
25	27	1	0	5	53	0	19	14	1	2	58	1	17	3	2	1	25	2	15	58	3	0	35
June 1	5	2	3	15	9	3	29	36	4	13	51	4	27	52	5	11	39	5	25	11	6	8	29
8	12	2	6	21	35	7	4	29	7	17	12	7	29	43	8	12	4	8	24	15	9	6	18
15	19	2	9	18	14	10	0	6	10	11	58	10	23	54	11	5	58	11	18	17	0	0	53
22	26	2	0	13	53	0	27	19	1	11	13	1	25	32	2	10	14	2	25	10	3	10	11
29	3	3	3	25	8	4	9	53	4	24	19	5	8	24	5	22	7	6	5	30	6	18	35
July 6	11	3	7	1	24	7	14	1	7	26	27	8	8	44	8	20	53	9	2	56	9	14	53
13	18	3	9	26	46	10	8	37	10	20	29	11	2	24	11	14	27	11	26	43	0	9	17
20	24	3	0	22	13	1	5	36	1	19	29	2	3	50	2	18	38	3	3	45	3	19	0
27	2	4	4	4	14	4	19	15	5	3	56	5	18	11	6	2	0	6	15	23	6	28	24
Aug. 3	9	4	7	11	6	7	23	33	8	5	49	8	17	55	8	29	58	9	11	52	9	23	45
10	16	4	10	5	37	10	17	29	10	29	23	11	11	21	11	23	27	0	5	45	0	18	19
17	23	4	1	1	12	1	14	30	1	28	15	2	12	29	2	27	9	3	12	11	3	27	25
24	30	4	4	12	42	4	27	50	5	12	39	5	27	5	6	11	2	6	24	32	7	7	37
31	8	5	7	20	19	8	2	44	8	14	55	8	26	57	9	8	52	9	20	45	10	2	37
Sept.7	15	5	10	14	30	10	2	26	11	8	27	11	20	34	0	2	50	0	15	17	0	27	58
14	21	5	1	10	55	1	24	12	2	7	52	2	21	54	3	6	19	3	21	3	4	6	1
21	29	5	4	21	4	5	6	3	5	20	49	6	5	16	6	19	18	7	2	55	7	16	5
28	6	6	7	28	53	8	11	20	8	23	32	9	5	33	9	17	27	9	29	18	10	11	11
Oct. 5	13	6	10	23	7	11	5	10	11	17	21	11	29	42	0	12	14	0	24	59	1	7	56
12	20	6	1	21	8	2	4	34	2	18	16	3	2	13	3	16	25	4	0	49	4	15	21
19	27	6	4	29	59	5	14	34	5	29	3	6	13	17	6	27	14	7	10	49	7	24	2
26	5	7	8	6	53	8	19	24	9	1	38	9	13	40	9	25	34	10	7	25	10	19	18
Nov. 2	11	7	11	1	17	11	13	25	11	25	47	0	8	22	0	21	14	1	4	22	1	17	44
9	18	7	2	1	21	2	15	8	2	29	4	3	13	8	3	27	15	4	11	26	4	25	38
16	26	7	5	9	48	5	23	55	6	7	56	6	21	47	7	5	25	7	18	49	8	1	55
23	3	8	8	14	42	8	27	13	9	9	27	9	21	30	10	3	24	10	15	14	10	27	6
30	10	8	11	9	4	11	21	14	0	3	41	0	16	26	0	29	33	1	13	2	1	26	51
Dec. 7	17	8	2	10	56	2	26	13	3	9	35	3	23	58	4	8	16	4	22	27	5	6	29
14	24	8	5	20	22	6	4	6	6	17	40	7	1	5	7	14	19	7	27	12	8	10	12
21	1	9	8	22	49	9	5	13	9	17	24	9	29	24	10	11	16	10	13	4	11	4	54
28	8	9	11	16	29	11	28	57	0	11	22	0	24	9	1	7	20	1	21	0	2	5	6
Jan 4	15	9	2	19	34		—			—			—			—			—			—	

Rahu (रा ☊ हु) on 1st of each month												
Jan. :	0	16	2	0	14	23	0	12	54	0	11	16
May :	0	9	41	0	8	2	0	6	27	0	4	48
Sept. :	0	3	10	0	1	34	11	29	56	11	28	21

Date	Beng. Date		*Nırayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ नि			बृ ♃ ह			म ♂ ङ्ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			♀ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 4	19	9	8	21	14	2	22	52	3	21	58	8	20	17	7	7	33	8	24	6	8	20	7
11	26	9	8	22	3	2	21	55	3	20	4	8	27	25	7	12	43	8	15	34	8	13	39
18	4	10	8	22	53	2	21	0	3	17	39	9	4	33	7	18	37	8	13	17	8	14	21
25	11	10	8	23	42	2	20	8	3	14	55	9	11	40	7	25	5	8	17	5	8	19	50
Feb. 1	18	10	8	24	29	2	19	22	3	12	8	9	18	47	8	1	58	8	24	10	8	27	47
8	25	10	8	25	15	2	18	43	3	9	33	9	25	52	8	9	11	9	2	58	9	7	5
15	3	11	8	25	59	2	18	12	3	7	23	10	2	57	8	16	39	9	12	50	9	17	19
22	10	11	8	26	41	2	17	49	3	5	47	10	10	1	8	24	18	9	23	32	9	28	21
Mar. 1	17	11	8	27	20	2	17	36	3	4	51	10	17	3	9	2	7	10	5	1	10	10	11
8	24	11	8	27	56	2	17	33	3	4	32	10	24	4	9	10	4	10	17	21	10	22	54
15	1	12	8	28	29	2	17	39	3	4	49	11	1	3	9	18	6	11	0	34	11	6	29
22	8	12	8	28	58	2	17	55	3	5	39	11	8	1	9	26	14	11	14	31	11	20	32
29	15	12	8	29	24	2	18	20	3	6	57	11	14	57	10	4	25	11	28	17	0	3	42
Apr. 5	22	12	8	29	45	2	18	53	3	8	41	11	21	51	10	12	39	0	10	1	0	13	54
12	29	12	9	0	1	2	19	34	3	10	45	11	28	43	10	20	56	0	17	45	0	19	33
19	6	1	9	0	13	2	20	23	3	13	8	0	5	34	10	29	15	0	20	30	0	20	10
26	13	1	9	0	20	2	21	18	3	15	47	0	12	24	11	7	36	0	18	34	0	16	48
May 3	20	1	9	0	23	2	22	19	3	18	39	0	19	12	11	15	58	0	14	20	0	12	32
10	27	1	9	0	20	2	23	26	3	21	43	0	25	58	11	24	21	0	11	3	0	10	41
17	3	2	9	0	13	2	24	37	3	24	57	1	2	43	0	2	46	0	11	16	0	12	29
24	10	2	9	0	2	2	25	53	3	28	19	1	9	28	0	11	11	0	15	3	0	17	37
31	17	2	8	29	46	2	27	13	4	1	50	1	16	11	0	19	38	0	21	49	0	25	30
June 7	24	2	8	29	26	2	28	35	4	5	27	1	22	53	0	28	5	1	1	16	1	5	47
14	31	2	8	29	3	3	0	1	4	9	11	1	29	34	1	6	33	1	12	39	1	18	15
21	6	3	8	28	36	3	1	29	4	13	0	2	6	15	1	15	2	1	26	17	2	2	37
28	13	3	8	28	8	3	2	59	4	16	55	2	12	56	1	23	32	2	11	19	2	17	51
July 5	20	3	8	27	38	3	4	30	4	20	55	2	19	36	2	2	3	2	26	22	3	2	31
12	27	3	8	27	7	3	6	2	4	24	59	2	26	16	2	10	35	3	10	18	3	15	49
19	3	4	8	26	36	3	7	35	4	29	7	3	2	57	2	19	9	3	22	44	3	27	36
26	10	4	8	26	6	3	9	9	5	3	20	3	9	38	2	27	43	4	3	38	4	7	49
Aug. 2	17	4	8	25	37	3	10	42	5	7	36	3	16	20	3	6	19	4	12	55	4	16	22
9	24	4	8	25	10	3	12	15	5	11	56	3	23	2	3	14	56	4	20	21	4	22	50
16	31	4	8	24	46	3	13	47	5	16	20	3	29	45	3	23	34	4	25	18	4	26	25
23	6	5	8	24	26	3	15	17	5	20	48	4	6	30	4	2	14	4	26	44	4	25	57
30	13	5	8	24	9	3	16	46	5	25	19	4	13	15	4	10	54	4	23	35	4	20	59
Sept. 6	20	5	8	23	56	3	18	13	5	29	53	4	20	2	4	19	35	4	17	10	4	14	44
13	27	5	8	23	48	3	19	37	6	4	32	4	26	50	4	28	17	4	13	3	4	13	20
20	3	6	8	23	45	3	20	58	6	9	13	5	3	40	5	7	0	4	15	50	4	19	6
27	10	6	8	23	46	3	22	16	6	13	58	5	10	31	5	15	43	4	24	7	4	29	41
Oct. 4	17	6	8	23	53	3	23	29	6	18	46	5	17	24	5	24	26	5	6	38	5	11	58
11	24	6	8	24	4	3	24	38	6	23	38	5	24	19	6	3	10	5	19	3	5	24	17
18	1	7	8	24	20	3	25	41	6	28	32	6	1	15	6	11	55	6	1	7	6	6	8
25	8	7	8	24	40	3	26	38	7	3	30	6	18	13	6	20	39	6	12	41	6	17	30
Nov. 1	15	7	8	25	5	3	27	20	7	8	32	6	15	12	6	29	23	6	23	49	6	28	28
8	22	7	8	25	34	3	28	13	7	13	36	6	22	14	7	8	7	7	4	34	7	9	5
15	29	7	8	26	6	3	28	48	7	18	43	6	29	16	7	16	52	7	15	0	7	19	22
22	6	8	8	26	42	3	29	16	7	23	53	7	6	20	7	25	36	7	25	2	7	29	7
29	13	8	8	27	21	3	29	34	7	29	6	7	13	25	8	4	20	8	4	13	8	7	39
Dec. 6	20	8	8	28	3	3	29	43	8	4	22	7	20	31	8	13	4	8	11	19	8	13	2
13	27	8	8	28	47	3	29	43	8	9	40	7	27	38	8	21	47	8	13	16	8	11	30
20	4	9	8	29	33	3	29	33	8	15	1	8	4	45	9	0	30	8	6	52	8	2	48
27	11	9	9	0	21	3	29	13	8	20	23	8	11	53	9	9	12	7	28	40	7	27	19
Jan. 3	18	9	9	1	8	3	28	44	8	25	47	8	19	0	9	17	51	7	27	44		—	

Stationary :—Saturn—May 4 R, September 22 D, Jupiter—March 7 D, December 10 R; Mars—March 9 D; Venus—; Mercury—January 17D, April 20 R, May 14 D, August 22 R, Sept. 14 D, Dec. 12 R, Jan. 1 D

EPHEMERIS Saka era 1852-53, Saṁvat 1987-88 1931 A.D.

Date	Tithi & Month	*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M. I.S.T. Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 4	15 9	2 19 34	3 4 18	3 19 9	4 3 58	4 18 38	5 3 4	5 17 12
11	23 9	6 1 2	6 14 36	6 27 54	7 10 59	7 23 52	8 6 34	8 19 5
18	30 9	9 1 27	9 13 39	9 25 43	10 7 38	10 19 28	11 1 15	11 13 3
25	6 10	11 24 57	0 7 1	0 19 22	1 2 4	1 15 12	1 28 50	2 12 57
Feb. 1	13 10	2 27 32	3 12 29	3 27 38	4 12 49	4 27 53	5 12 40	5 27 5
8	21 10	6 11 6	6 24 44	7 8 0	7 20 57	8 3 38	8 16 5	8 28 22
15	28 10	9 10 30	9 22 31	10 4 26	10 16 17	10 28 5	11 9 53	11 21 43
22	5 11	0 3 39	0 15 44	0 28 4	1 10 42	1 23 44	2 7 13	2 21 11
Mar. 1	12 11	3 5 37	3 20 28	4 5 36	4 20 53	5 6 8	5 21 10	6 5 52
8	19 11	6 20 9	7 3 59	7 17 23	8 0 23	8 13 3	8 25 25	9 7 35
15	27 11	9 19 34	10 1 27	10 13 17	10 25 5	11 6 54	11 18 46	0 0 43
22	3 12	0 12 47	0 25 1	1 7 27	1 20 10	2 3 12	2 16 35	3 0 22
29	10 12	3 14 33	3 29 6	4 13 58	4 29 1	5 14 8	5 29 9	6 13 56
Apr. 5	18 12	6 28 22	7 12 23	7 25 57	8 9 5	8 21 49	9 4 13	9 16 21
12	25 12	9 28 18	10 10 9	10 21 56	11 3 45	11 15 37	11 27 36	0 9 43
19	1 1	0 22 1	1 4 30	1 17 13	2 0 9	2 13 20	2 26 48	3 10 31
26	9 1	3 24 32	4 8 48	4 23 18	5 7 58	5 22 43	6 7 27	6 22 2
May 3	16 1	7 6 22	7 20 23	8 3 59	8 17 11	9 0 0	9 12 27	9 24 37
10	23 1	10 6 35	10 18 26	11 0 14	11 12 4	11 24 1	0 6 8	0 18 27
17	30 1	1 1 1	1 13 50	1 26 54	2 10 12	2 23 43	3 7 25	3 21 16
24	7 2	4 5 16	4 19 24	5 3 37	5 17 55	6 2 15	6 16 33	7 0 46
31	15 2	7 14 48	7 28 34	8 12 3	8 25 10	9 7 57	9 20 24	10 2 35
June 7	22 2	10 14 33	10 6 24	11 8 13	11 20 5	0 2 5	0 14 18	0 26 48
14	28 2	1 9 36	1 22 44	2 6 11	2 19 54	3 3 49	3 17 54	4 2 3
21	6 3	4 16 14	5 0 24	5 14 31	5 28 35	6 12 35	6 26 30	7 10 17
28	13 3	7 23 54	8 7 20	8 20 31	9 3 25	9 16 3	9 28 25	10 10 32
July 5	20 3	10 22 29	11 4 19	11 16 7	11 27 59	0 10 1	0 22 16	1 4 51
12	27 3	1 17 47	2 1 8	2 14 52	2 28 57	3 13 17	3 27 47	4 12 20
19	4 3	4 26 50	5 11 13	5 25 26	6 9 28	6 23 17	7 6 56	7 20 22
26	12 3	8 3 37	8 16 40	8 29 30	9 12 7	9 24 31	10 6 43	10 18 44
Aug. 2	19 3	11 0 37	11 12 25	11 24 13	0 6 4	0 18 4	1 0 19	1 12 54
9	25 3	1 25 52	2 9 16	2 23 7	3 7 23	3 22 00	4 6 50	4 21 46
16	3 4	5 6 38	5 21 21	6 5 48	6 19 58	7 3 49	7 17 21	8 0 38
23	11 4	8 13 34	8 26 19	9 8 51	9 21 11	10 3 21	10 15 22	10 27 16
30	17 4	11 9 6	11 20 53	0 2 40	0 14 32	0 26 33	1 8 47	1 21 19
Sept. 6	24 4	2 4 13	2 17 33	3 1 20	3 15 35	4 0 14	4 15 12	5 0 20
13	1 5	5 15 29	6 0 30	6 15 15	6 29 40	7 13 40	7 27 16	8 10 20
20	9 5	8 23 21	9 5 55	9 18 14	10 0 22	10 12 20	10 24 13	11 6 2
27	16 5	11 17 50	11 29 38	0 11 30	0 23 27	1 5 33	1 17 50	2 0 23
Oct. 4	22 5	2 13 14	2 26 27	3 10 4	3 24 7	4 8 35	4 23 24	5 8 28
11	30 5	5 23 39	6 8 48	6 23 46	7 8 24	7 22 37	8 6 22	8 19 40
18	7 6	9 2 33	9 15 4	9 27 18	10 9 19	10 21 12	11 3 0	11 14 47
25	14 6	11 26 36	0 8 30	0 20 29	1 2 37	1 14 54	1 27 22	2 10 3
Nov. 1	21 6	2 22 59	3 6 11	3 19 41	4 3 31	4 17 41	5 2 11	5 16 56
8	28 6	6 1 53	6 16 53	7 1 47	7 16 27	8 0 46	8 14 38	8 28 3
15	6 7	9 11 1	9 23 35	10 5 49	10 17 49	10 29 40	11 11 27	11 23 14
22	12 7	0 5 7	0 17 7	0 29 17	1 11 39	1 24 14	2 7 1	2 20 0
29	19 7	3 3 10	3 16 32	4 0 5	4 13 51	4 27 49	5 12 0	5 26 23
Dec. 6	27 7	6 10 55	6 25 31	7 10 5	7 24 31	8 8 41	8 22 30	9 5 55
18	4 8	9 18 55	10 1 31	10 13 48	10 25 49	11 7 41	11 19 28	0 1 17
20	11 8	0 13 12	0 25 18	1 7 37	1 20 13	2 3 6	2 16 14	2 29 37
27	18 8	3 13 11	3 26 55	4 10 45	4 24 41	5 8 41	5 22 44	6 6 51
Jan. 3	25 8	6 21 0	—	—	—	—	—	—

Rahu (रा ☊ बा) on 1st of each month				
	Jan. :	11 26 40	11 25 3	11 23 34	11 21 55
	May :	11 20 20	11 18 41	11 17 6	11 15 28
	Sept. :	11 13 49	11 12 14	11 10 35	11 9 0

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Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			শ ♄ শ			বৃ ♃ বৃ			ম ♂ ম			র ☉ র			শু ♀ শু			বু ☿ বু			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	18	9	9	1	8	3	28	44	8	25	47	8	19	0	9	17	51	7	27	44	7	29	23
10	25	9	9	1	58	3	28	7	9	1	13	8	26	8	9	26	31	8	2	46	8	5	55
17	3	10	9	2	48	3	27	23	9	6	41	9	3	16	10	5	9	8	10	40	8	14	32
24	10	10	9	3	38	3	26	34	9	12	10	9	10	23	10	13	45	8	19	58	8	24	13
31	71	10	9	4	27	3	25	40	9	17	40	9	17	30	10	22	18	9	0	5	9	4	37
Feb. 7	24	10	9	5	16	3	24	45	9	23	11	9	24	36	11	0	48	9	10	51	9	15	39
14	1	11	9	6	3	3	23	49	9	28	43	10	1	41	11	9	51	9	22	15	9	27	20
21	8	11	9	6	49	3	22	56	10	4	15	10	8	45	11	17	37	10	4	21	10	9	46
28	15	11	9	7	33	3	22	6	10	9	46	10	15	47	11	25	54	10	17	12	10	22	55
Mar. 6	22	11	9	8	14	3	21	22	10	15	18	10	22	48	0	4	5	11	0	39	11	6	26
13	29	11	9	8	53	3	20	45	10	20	49	11	29	48	0	12	10	11	13	52	11	19	1
20	7	12	9	9	29	3	20	15	10	26	19	11	6	46	0	20	6	11	24	52	11	28	16
27	14	12	9	10	1	3	19	55	11	1	48	11	13	42	0	27	53	0	1	11	0	2	5
Apr. 3	21	12	9	10	30	3	19	44	11	7	15	11	20	36	1	5	29	0	1	36	0	0	10
10	28	12	9	10	54	3	19	42	11	12	42	11	27	29	1	12	51	11	27	23	11	25	8
17	4	1	9	11	15	3	19	49	11	18	6	0	4	21	1	19	56	11	22	35	11	21	21
24	11	1	9	11	31	3	20	5	11	23	28	0	11	10	1	26	41	11	20	50	11	21	19
May 1	18	1	9	11	42	3	20	29	11	28	49	0	17	58	2	3	0	11	23	2	11	25	2
8	25	1	9	11	49	3	21	2	0	4	7	0	24	45	2	8	46	11	28	31	0	1	39
15	1	2	9	11	51	3	21	43	0	9	23	1	1	31	2	13	51	0	6	30	0	10	34
22	8	2	9	11	48	3	22	30	0	14	36	1	8	15	2	18	0	0	16	34	0	21	27
29	15	2	9	11	40	3	23	24	0	19	47	1	14	58	2	20	58	0	28	31	1	4	12
June 5	22	2	9	11	28	3	24	23	0	24	54	1	21	40	2	22	25	1	12	17	1	18	39
12	29	2	9	11	11	3	25	28	1	0	0	1	28	22	2	22	4	1	27	23	2	3	58
19	5	3	9	10	51	3	26	38	1	5	2	2	5	3	2	19	47	2	12	35	2	18	48
26	12	3	9	10	28	3	27	52	1	10	1	2	11	43	2	15	57	2	26	38	3	2	9
July 3	19	3	9	10	1	3	29	9	1	14	57	2	18	24	2	11	39	3	9	1	3	13	47
10	26	3	9	9	32	4	0	30	1	19	51	2	25	4	2	8	6	3	19	39	3	23	38
17	1	4	9	9	2	4	1	53	1	24	40	3	1	45	2	6	13	3	28	24	4	1	30
24	8	4	9	8	31	4	3	19	1	29	28	3	8	26	2	6	15	4	4	56	4	6	53
31	15	4	9	8	0	4	4	47	2	4	12	3	15	7	2	8	2	4	8	33	4	8	59
Aug. 7	22	4	9	7	29	4	6	16	2	8	52	3	21	50	2	11	15	4	8	22	4	6	59
14	29	4	9	7	1	4	7	47	2	13	29	3	28	33	2	15	34	4	4	8	4	1	36
21	5	5	9	6	34	4	9	18	2	18	3	4	5	17	2	20	44	3	28	29	3	26	54
28	12	5	9	6	10	4	10	49	2	22	33	4	12	2	2	26	35	3	26	26	3	27	30
Sept.4	19	5	9	5	50	4	12	21	2	27	0	4	18	49	3	2	57	4	0	47	4	4	28
11	26	5	9	5	34	4	13	52	3	1	22	4	25	37	3	9	43	4	10	36	4	15	48
18	2	6	9	5	22	4	15	21	3	5	41	5	2	26	3	16	50	4	23	7	4	28	42
25	9	6	9	5	14	4	16	50	3	9	55	5	9	17	3	24	13	5	6	5	5	11	31
Oct. 2	16	6	9	5	12	4	18	17	3	14	4	5	16	10	4	1	49	5	18	34	5	23	43
9	23	6	9	5	14	4	19	41	3	18	8	5	23	4	4	9	38	6	0	23	6	5	15
16	30	6	9	5	21	4	21	3	3	22	7	6	0	0	4	17	36	6	11	35	6	16	13
23	6	7	9	5	34	4	22	21	3	26	0	6	6	58	4	25	42	6	22	15	6	26	41
30	13	7	9	5	50	4	23	36	3	29	46	6	13	57	5	3	56	7	2	25	7	6	37
Nov. 6	20	7	9	6	12	4	24	46	4	3	24	6	20	58	5	12	15	7	11	58	7	15	46
13	27	7	9	6	37	4	25	51	4	6	53	6	28	0	5	20	40	7	20	25	7	23	24
20	4	8	9	7	7	4	26	51	4	10	14	7	5	4	5	29	9	7	26	25	7	27	34
27	11	8	9	7	40	4	27	44	4	13	23	7	12	8	6	7	42	7	27	0	7	24	43
Dec. 4	18	8	9	8	17	4	28	31	4	16	19	7	19	14	6	16	18	7	19	42	7	15	44
11	25	8	9	8	57	4	29	10	4	19	0	7	26	21	6	24	56	7	12	10	7	11	24
18	3	9	9	9	40	4	29	41	4	21	26	8	3	28	7	3	36	7	12	38	7	14	48
25	10	9	9	10	24	5	0	3	4	23	30	8	10	36	7	12	17	7	18	47	7	22	18
Jan. 1	17	9	9	11	11	5	0	17	4	25	11	8	17	44	7	21	0	7	27	26		—	

Stationary :—Saturn—May 15 R, October 3 D, Jupiter—April 9 D; Mars—; Venus—June 8 R, July 21 D; Mercury—January 1D, Mar. 31 R, April 24D, August 4 R, August 27 D, November 25 R, December. 14 D.

EPHEMERIS Saka era 1853-54, Saṁvat 1988-89 1932 A.D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ 6) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	25	8	6	21	0	7	5	10	7	19	16	8	3	15	8	17	3	9	0	35	9	13	48
10	3	9	9	26	41	10	9	15	10	21	31	11	3	33	11	15	25	11	27	13	0	9	2
17	9	9	0	20	58	1	3	0	1	15	29	1	28	12	2	11	16	2	24	41	3	8	26
24	16	9	3	22	26	4	6	37	4	20	55	5	5	13	5	19	30	6	3	43	6	17	49
31	24	9	7	1	48	7	15	40	7	29	22	8	12	54	8	26	14	9	9	22	9	22	14
Feb. 7	1	10	10	4	52	10	17	16	10	29	26	11	11	25	11	23	17	0	5	5	0	16	54
14	7	10	0	28	49	1	10	55	1	23	17	2	5	59	2	19	5	3	2	36	3	16	31
21	14	10	4	0	48	4	15	21	5	0	5	5	14	52	5	29	35	6	14	18	6	28	28
28	22	10	7	12	32	7	26	19	8	9	49	8	23	2	9	6	1	9	18	45	10	1	17
Mar. 6	29	10	10	13	37	10	25	46	11	7	47	11	19	41	0	1	31	0	13	19	0	25	8
13	6	11	1	7	4	1	19	8	2	1	28	2	14	5	2	27	5	3	10	31	3	24	24
20	13	11	4	8	43	4	23	24	5	8	22	5	23	30	6	8	36	6	23	33	7	8	14
27	20	11	7	22	32	8	6	26	8	19	56	9	3	3	9	15	50	9	28	20	10	10	36
Apr. 3	28	11	10	22	42	11	4	40	11	16	32	11	28	22	0	10	10	0	22	0	1	3	52
10	4	12	1	15	51	1	27	59	2	10	18	2	22	53	3	5	47	3	19	5	4	2	47
17	11	12	4	16	57	5	1	31	5	16	27	6	1	38	6	16	55	7	2	6	7	17	2
24	19	12	8	1	36	8	15	42	8	29	19	9	12	28	9	25	13	10	7	38	10	19	47
May 1	26	12	11	1	45	11	13	36	11	25	24	0	7	12	0	19	2	1	0	56	1	12	56
8	3	1	1	25	3	2	7	18	2	19	44	3	2	24	3	15	18	3	28	31	4	12	5
15	10	1	4	26	2	5	10	23	5	25	5	6	10	4	6	25	13	7	10	22	7	25	20
22	17	1	8	9	59	8	24	12	9	7	55	9	21	10	10	3	58	10	16	24	10	28	32
29	25	1	11	10	29	11	22	18	0	4	6	0	15	55	0	27	49	1	9	50	1	22	0
June 5	1	2	2	4	19	2	16	48	2	29	29	3	12	20	3	25	24	4	8	42	4	22	15
12	8	2	5	6	6	5	20	14	6	4	39	6	19	19	7	4	8	7	18	59	8	3	44
19	16	2	8	18	13	9	2	21	9	16	4	9	29	19	10	12	9	10	24	37	11	6	48
26	23	2	11	18	46	0	0	37	0	12	26	0	24	18	1	6	17	1	18	26	2	0	46
July 3	30	2	2	13	20	2	26	6	3	9	6	3	22	17	4	5	39	4	19	12	5	2	56
10	7	3	5	16	50	6	0	54	6	15	8	6	29	30	7	13	56	7	28	21	8	12	41
17	15	3	8	26	49	9	10	40	9	24	10	10	7	19	10	20	6	11	2	33	11	14	44
24	22	3	11	26	44	0	8	37	0	20	28	1	2	22	1	14	24	1	26	38	2	9	7
31	28	3	2	21	52	3	4	55	3	18	14	4	1	48	4	15	34	4	29	31	5	13	35
Aug. 7	5	4	5	27	44	6	11	55	6	26	8	7	10	19	7	24	26	8	8	27	8	22	20
14	13	4	9	6	1	9	19	27	10	2	38	10	15	32	10	28	9	11	10	31	11	22	39
21	20	4	0	4	38	0	16	31	0	28	23	1	10	17	1	22	20	2	4	35	2	17	6
28	27	4	2	29	57	3	13	9	3	26	42	4	10	36	4	24	47	5	9	10	5	23	41
Sept. 4	4	5	6	8	14	6	22	43	7	7	5	7	21	16	8	5	15	8	18	59	9	2	29
11	12	5	9	15	45	9	28	47	10	11	35	10	24	10	11	6	34	11	18	46	0	0	49
18	18	5	0	12	46	0	24	38	1	6	29	1	18	22	2	0	23	2	12	36	2	25	4
25	25	5	3	7	53	3	21	5	4	4	42	4	18	45	5	3	12	5	17	57	6	2	53
Oct. 2	2	6	6	17	52	7	2	45	7	17	45	8	1	47	8	15	48	8	29	26	9	12	44
9	10	6	9	25	43	10	8	26	10	20	55	11	3	13	11	15	23	11	27	25	0	9	22
16	17	6	0	21	15	1	3	7	1	14	58	1	26	52	2	8	52	2	21	2	3	3	26
23	24	6	3	16	9	3	29	13	4	12	45	4	26	44	5	11	11	5	26	3	6	11	12
30	1	7	6	26	29	7	11	43	7	26	44	8	11	22	8	25	34	9	9	17	9	22	34
Nov. 6	9	7	10	5	26	10	18	0	11	0	18	11	12	25	11	24	24	0	6	19	0	18	11
13	15	7	1	0	3	1	11	56	1	23	50	2	5	49	2	17	53	3	0	5	3	12	29
20	22	7	3	25	8	4	8	6	4	21	27	5	5	15	5	19	30	6	4	12	6	19	16
27	29	7	7	4	33	7	19	52	8	5	2	8	19	53	9	4	17	9	18	10	10	1	34
Dec. 4	7	8	10	14	30	10	27	4	11	9	19	11	21	22	0	3	17	0	15	8	0	26	58
11	14	8	1	8	51	1	20	57	2	2	49	2	14	57	2	27	11	3	9	34	3	22	7
18	20	8	4	4	51	4	17	51	5	1	9	5	14	47	5	28	48	6	13	12	6	27	56
25	28	8	7	12	54	7	27	59	8	13	0	8	27	47	9	12	13	9	26	12	10	9	43
Jan. 1	5	9	10	22	45		—			—			—			—			—			—	

Rahu (रा ☊ .श्रा) on 1st of each month	Jan. :	11 7 21	11 5 42	11 4 10	11 2 31
	May :	11 0 56	10 29 18	10 27 42	10 26 4
	Sept. :	10 24 25	10 22 50	10 21 12	10 19 36

1933 A.D. 1339-40 B.S. *Ayanamsa* 22° 55′ 27″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			शा ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	9	11	11	5	0	17	4	25	11	8	17	44	7	21	0	7	27	26	8	1	31
8	24	9	9	11	59	5	0	21	4	26	26	8	24	52	7	29	43	8	7	11	8	11	34
15	2	10	9	12	48	5	0	16	4	27	11	9	2	0	8	8	27	8	17	32	8	22	7
22	9	10	9	13	38	5	0	1	4	27	21	9	9	7	8	17	11	8	28	21	9	3	8
29	16	10	9	14	28	4	29	37	4	26	54	9	16	14	8	25	56	9	9	39	9	14	40
Feb. 5	23	10	9	15	17	4	29	4	4	25	48	9	23	20	9	4	40	9	21	29	9	26	45
12	30	10	9	16	7	4	28	24	4	24	5	10	0	25	9	13	24	10	3	57	10	9	27
19	7	11	9	16	56	4	27	39	4	21	50	10	7	29	9	22	8	10	16	52	10	22	23
26	14	11	9	17	43	4	26	48	4	19	13	10	14	31	10	0	52	10	29	27	11	4	17
Mar. 5	21	11	9	18	29	4	25	54	4	16	27	10	21	33	10	9	36	11	9	37	11	12	28
12	28	11	9	19	12	4	25	0	4	13	48	11	28	32	10	18	19	11	14	24	11	14	19
19	5	12	9	19	54	4	24	6	4	11	29	11	5	30	10	27	2	11	12	25	11	10	4
26	12	12	9	20	32	4	23	15	4	9	42	11	12	27	11	5	44	11	6	34	11	4	16
Apr. 2	19	12	9	21	8	4	22	28	4	8	31	11	19	22	11	14	26	11	2	15	11	1	42
9	26	12	9	21	40	4	21	47	4	7	58	11	26	15	11	23	6	11	2	14	11	3	30
16	3	1	9	22	8	4	21	13	4	8	7	0	3	6	0	1	46	11	6	8	11	8	44
23	10	1	9	22	32	4	20	48	4	8	41	0	9	56	0	10	26	11	12	54	11	16	28
30	17	1	9	22	52	4	20	30	4	9	50	0	16	45	0	19	4	11	21	45	11	26	6
May 7	24	1	9	23	8	4	20	23	4	11	27	0	23	32	0	27	42	0	2	21	0	7	23
14	31	1	9	23	19	4	20	23	4	13	26	1	0	17	1	6	19	0	14	34	0	20	17
21	7	2	9	23	25	4	20	33	4	15	46	1	7	2	1	14	56	0	28	22	1	4	42
28	14	2	9	23	26	4	20	51	4	18	23	1	13	45	1	23	32	1	13	25	1	20	1
June 4	21	2	9	23	23	4	21	17	4	21	15	1	20	28	2	2	7	1	28	39	2	4	53
11	28	2	9	23	15	4	21	51	4	24	21	1	27	9	2	10	42	2	12	43	2	18	12
18	4	3	9	23	3	4	22	33	4	27	38	2	3	50	2	19	16	2	24	56	2	29	33
25	11	3	9	22	46	4	23	21	5	1	6	2	10	31	2	27	50	3	5	7	3	8	49
July 2	18	3	9	22	25	4	24	15	5	4	43	2	17	12	3	6	24	3	13	4	3	15	43
9	25	3	9	22	1	4	25	15	5	8	28	2	23	52	3	14	56	3	18	24	3	19	42
16	32	3	9	21	34	4	26	21	5	12	21	3	0	32	3	23	28	3	20	24	3	20	5
23	7	4	9	21	5	4	27	30	5	16	21	3	7	13	4	1	59	3	18	34	3	16	45
30	14	4	9	20	34	4	28	44	5	20	28	3	13	55	4	10	29	3	13	51	3	11	45
Aug. 6	21	4	9	20	3	5	0	2	5	24	41	3	20	37	4	18	57	3	9	44	3	9	9
13	28	4	9	19	32	5	1	22	5	28	59	3	27	20	4	27	25	3	9	56	3	11	45
20	4	5	9	19	2	5	2	46	6	3	23	4	4	4	5	5	51	3	15	47	3	19	52
27	11	5	9	18	33	5	4	12	6	7	52	4	10	49	5	14	16	3	26	24	4	1	52
Sept.3	18	5	9	18	6	5	5	39	6	12	26	4	17	35	5	22	39	4	9	31	4	15	21
10	25	5	9	17	43	5	7	8	6	17	4	4	24	23	6	0	59	4	23	1	4	28	39
17	1	6	9	17	23	5	8	38	6	21	48	5	1	12	6	9	18	5	5	55	5	11	11
24	8	6	9	17	7	5	10	9	6	26	35	5	8	3	6	17	34	5	17	58	5	22	54
Oct. 1	15	6	9	16	56	5	11	40	7	1	27	5	14	55	6	25	48	5	29	15	6	3	53
8	22	6	9	16	49	5	13	10	7	6	23	5	21	49	7	3	57	6	9	51	6	14	11
15	29	6	9	16	47	5	14	40	7	11	22	5	28	45	7	12	3	6	19	45	6	23	45
22	5	7	9	16	50	5	16	9	7	16	26	6	5	42	7	20	4	6	28	48	7	2	18
29	12	7	9	16	58	5	17	37	7	21	33	6	12	41	7	27	59	7	6	26	7	8	59
Nov. 5	19	7	9	17	11	5	19	2	7	26	43	6	19	42	8	5	47	7	11	17	7	11	50
12	26	7	9	17	29	5	20	25	8	1	57	6	26	44	8	13	26	7	10	29	7	7	45
19	3	8	9	17	51	5	21	44	8	7	13	7	3	47	8	20	52	7	2	35	6	28	52
26	10	8	9	18	18	5	23	1	8	12	33	7	10	52	8	28	4	6	26	0	6	25	49
Dec. 3	17	8	9	18	48	5	24	13	8	17	55	7	17	57	9	4	57	6	27	47	7	0	27
10	24	8	9	19	23	5	25	20	8	23	19	7	25	4	9	11	23	7	4	59	7	8	50
17	2	9	9	20	0	5	26	22	8	28	45	8	2	11	9	17	17	7	14	21	7	18	39
24	9	9	9	20	41	5	27	18	9	4	13	8	9	19	9	22	36	7	24	33	7	29	2
31	16	9	9	21	24	5	28	7	9	9	42	8	16	27	9	26	36	8	5	7	8	9	43
Jan. 7	23	9	9	22	9	5	28	48	9	15	11	8	23	34	9	29	27	8	15	58	—		

Stationary **:—Saturn—May 27 R, October 15 D; Jupiter—January 8 R. May 10 D; Mars—Jan. 21 R, Apr 12 D; Venus—; Mercury—Mar 14 R, April 6 D, July 17R, August 10D, November 8R, 28 D.**

Eng. Date	Tithi & Month		*Nirayana* Long. of Moon (च) ६) at 5-30 p.m. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	5	9	10	22	45	11	5	25	11	17	44	11	29	49	0	11	44	0	23	35	1	5	26
8	12	9	1	17	21	1	29	22	2	11	31	2	23	50	3	6	20	3	19	0	4	1	50
15	19	9	4	14	53	4	28	7	5	11	34	5	25	15	6	9	11	6	23	21	7	7	44
22	26	9	7	22	17	8	6	54	8	21	29	9	5	55	9	20	6	10	3	57	10	17	25
29	4	10	11	0	30	11	13	13	11	25	36	0	7	45	0	10	43	1	1	36	1	13	29
Feb. 5	10	10	1	25	25	2	7	29	2	19	44	3	2	12	3	14	55	3	27	54	4	11	7
12	17	10	4	24	34	5	8	13	5	22	3	6	6	2	6	20	7	7	4	17	7	18	29
19	25	10	8	2	42	8	16	53	9	0	58	9	14	54	9	28	38	10	12	8	10	25	21
26	2	11	11	8	18	11	20	56	0	3	20	0	15	30	0	27	30	1	9	24	1	21	16
Mar. 5	9	11	2	3	12	2	15	16	2	27	32	3	10	4	3	22	55	4	6	7	4	19	40
12	15	11	5	3	32	5	17	40	6	1	59	6	16	25	7	0	53	7	15	16	7	29	32
19	23	11	8	13	38	8	27	32	9	11	15	9	24	44	10	8	1	10	21	6	11	3	58
26	30	11	11	16	38	11	29	6	0	11	23	0	23	29	1	5	28	1	17	21	1	29	12
Apr. 2	7	12	2	11	8	2	23	9	3	5	23	3	17	53	4	0	44	4	14	0	4	27	42
9	14	12	5	11	49	5	26	18	6	11	4	6	25	58	7	10	52	7	25	37	8	10	8
16	21	12	8	24	20	9	8	11	9	21	43	10	4	57	10	17	54	11	0	39	11	13	12
23	29	12	11	25	35	0	7	49	0	19	56	1	1	56	1	13	52	1	15	44	2	7	35
30	5	1	2	19	28	3	1	28	3	13	38	3	26	4	4	8	52	4	22	4	5	5	44
May 7	12	1	5	19	54	6	4	31	6	19	30	7	4	42	7	19	57	8	5	3	8	19	51
14	20	1	9	4	16	9	18	14	10	1	47	10	14	56	10	27	46	11	10	19	11	22	39
21	27	1	0	4	50	0	16	53	0	28	52	1	10	46	1	22	39	2	4	30	2	16	22
28	4	2	2	28	17	3	10	19	3	22	30	4	4	55	4	17	39	5	0	46	5	14	20
June 4	11	2	5	28	24	6	12	55	6	27	52	7	13	6	7	28	26	8	13	41	8	28	41
11	19	2	9	13	17	9	27	26	10	11	6	10	24	19	11	7	9	11	19	39	0	1	55
18	26	2	0	14	0	0	25	57	1	7	51	1	19	42	2	1	34	2	13	27	2	25	24
25	3	3	3	7	26	3	19	34	4	1	52	4	14	23	4	27	10	5	10	17	5	23	46
July 2	9	3	6	7	41	6	22	1	7	6	44	7	21	45	8	6	54	8	22	3	9	7	1
9	17	3	9	21	39	10	5	53	10	19	40	11	2	59	11	15	53	11	28	27	0	10	43
16	24	3	0	22	47	1	4	43	1	16	35	1	28	27	2	10	20	2	22	18	3	4	23
23	1	4	3	16	35	3	28	56	4	11	29	4	24	14	5	7	13	5	20	28	6	4	0
30	8	4	6	17	51	7	2	1	7	16	27	8	1	7	8	15	54	9	0	42	9	15	23
Aug. 6	16	4	9	29	51	10	13	59	10	27	45	11	11	6	11	24	4	0	6	41	0	19	0
13	23	4	1	1	6	1	13	3	1	24	56	2	6	48	2	18	44	3	0	47	3	13	0
20	29	4	3	25	25	4	8	4	4	20	56	5	4	2	5	17	22	6	0	56	6	14	42
27	6	5	6	28	39	7	12	45	7	27	0	8	11	20	8	25	42	9	10	3	9	24	18
Sept. 3	14	5	10	8	23	10	22	15	11	5	49	11	19	4	0	2	0	0	14	37	0	26	57
10	21	5	1	9	4	1	21	2	2	2	54	2	14	47	2	26	44	3	8	50	3	21	10
17	28	5	4	3	45	4	16	39	4	29	52	5	13	23	5	27	10	6	11	10	6	25	19
24	5	6	7	9	33	7	23	48	8	8	1	8	22	10	9	6	13	9	20	10	10	3	57
Oct. 1	13	6	10	17	36	11	1	3	11	14	18	11	27	19	0	10	5	0	22	36	1	4	53
8	20	6	1	16	59	1	28	55	2	10	46	2	22	37	3	4	33	3	16	38	3	28	59
15	26	6	4	11	38	4	24	41	5	8	8	5	21	59	6	6	12	6	20	40	7	5	18
22	4	7	7	19	57	8	4	31	8	18	55	9	3	5	9	17	1	10	0	42	10	14	10
29	11	7	10	27	26	11	10	30	11	23	23	0	6	5	0	18	36	1	0	57	1	13	7
Nov. 5	18	7	1	25	8	2	7	2	2	18	51	3	0	40	3	12	33	3	24	35	4	6	52
12	25	7	4	19	28	5	2	30	5	16	0	5	29	59	6	14	25	6	29	13	7	14	14
19	2	8	7	29	19	8	14	17	8	29	1	9	13	25	9	27	27	10	11	7	10	24	27
26	10	8	11	7	29	11	20	17	0	2	53	0	15	18	0	27	34	1	9	43	1	21	44
Dec. 3	16	8	2	3	40	2	15	31	2	27	19	3	9	8	3	21	0	4	3	1	4	15	15
10	23	8	4	27	47	5	10	43	5	24	6	6	7	59	6	22	22	7	7	11	7	22	20
17	30	8	8	7	37	8	22	53	9	7	55	9	22	38	10	6	55	10	20	46	11	4	11
24	8	9	11	17	13	11	29	56	0	12	23	0	24	37	1	6	43	1	18	41	2	0	35
31	15	9	2	12	26	2	24	15	3	6	6	3	17	58	3	29	56	4	12	2	4	24	19
Jan. 7	21	9	5	6	53		—			—			—			—			—			—	

Rahu (रा ८ बा) on 1st of each month

Jan. :	10	17	58	10	16	19	10	14	49	10	13	11
May :	10	11	35	10	9	57	10	8	22	10	6	43
Sept. :	10	5	5	10	3	29	10	1	51	10	0	15

1934 A.D 1340-41 B.S. *Ayanamsa* 22° 56′ 23″ CONDENSED

Eng. Date	Beng. Date		*Nirayana* Longitudes at 5-30 p.m. I.S.T. on Sundays																				
			শ ♄ শ			বৃ ♃ বৃ			ম ♂ ম			র ☉ র			শু ♀ শু			বু ☿ বু			☿ Wednes.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 7	23	9	9	22	9	5	28	48	9	15	11	8	23	34	9	29	27	8	15	58	8	20	44
14	30	9	9	22	57	5	29	23	9	20	44	9	0	43	10	0	41	8	27	11	9	2	6
21	7	10	9	23	46	5	29	49	9	26	16	9	7	51	9	29	57	9	8	47	9	13	54
28	14	10	9	24	36	6	0	7	10	1	48	9	14	58	9	27	15	9	20	50	9	26	7
Feb. 4	21	10	9	25	26	6	0	15	10	7	20	9	22	4	9	23	11	10	3	11	10	8	25
11	28	10	9	26	16	6	0	14	10	12	52	9	29	9	9	19	2	10	15	4	10	19	33
18	6	11	9	27	7	6	0	4	10	18	23	10	6	13	9	16	4	10	24	19	10	26	36
25	13	11	9	27	57	5	29	44	10	23	53	10	13	16	9	15	0	10	27	29	10	26	27
Mar. 4	20	11	9	28	45	5	29	16	10	29	22	10	20	18	9	15	53	10	23	18	10	20	17
11	27	11	9	29	32	5	28	40	11	4	49	10	27	17	9	18	26	10	10	[illegible]	10	14	44
18	4	12	10	0	18	5	27	57	11	10	15	11	4	15	9	22	18	10	13	25	10	13	36
25	11	12	10	1	2	5	27	9	11	15	40	11	11	12	9	27	10	10	15	6	10	17	0
Apr. 1	18	12	10	1	43	5	26	18	11	21	2	11	18	7	10	2	47	10	20	22	10	23	25
8	25	12	10	2	21	5	25	24	11	26	23	11	25	1	10	8	58	10	28	4	11	1	56
15	2	1	10	2	57	5	24	30	0	1	41	0	1	53	10	15	36	11	7	32	11	12	3
22	9	1	10	3	28	5	23	38	0	6	57	0	8	43	10	22	33	11	18	28	11	23	35
29	16	1	10	3	57	5	22	50	0	12	10	0	15	32	10	29	46	0	0	48	0	6	31
May 6	23	1	10	4	21	5	22	6	0	17	21	0	22	19	11	7	12	0	14	32	0	20	49
13	30	1	10	4	41	5	21	29	0	22	29	0	29	5	11	14	47	0	29	27	1	6	0
20	6	2	10	4	56	5	20	59	0	27	35	1	5	49	11	22	31	1	14	37	1	20	49
27	13	2	10	5	7	5	20	37	1	2	38	1	12	33	0	0	21	1	28	35	2	3	57
June 3	20	2	10	5	13	5	20	24	1	7	49	1	19	15	0	8	17	2	10	28	2	14	50
10	27	2	10	5	14	5	20	19	1	12	37	1	25	57	0	16	17	2	19	57	2	23	14
17	2	3	10	5	10	5	20	24	1	17	32	2	2	39	0	24	22	2	26	48	2	28	49
24	9	3	10	5	2	5	20	37	1	22	25	2	9	19	1	2	30	3	0	32	3	1	2
July 1	16	3	10	4	49	5	20	58	1	27	15	2	16	0	1	10	41	3	0	38	2	29	36
8	23	3	10	4	32	5	21	28	2	2	2	2	22	40	1	18	56	2	27	27	2	25	33
15	30	3	10	4	11	5	22	5	2	6	47	2	29	21	1	27	13	2	23	9	2	21	51
22	6	4	10	3	46	5	22	49	2	11	30	3	6	2	2	5	33	2	21	10	2	21	37
29	13	4	10	3	19	5	23	39	2	16	10	3	12	43	2	13	55	2	23	37	2	26	10
Aug. 5	20	4	10	2	50	5	24	36	2	20	48	3	19	25	2	22	20	3	0	53	3	5	18
12	27	4	10	2	19	5	25	38	2	25	24	3	26	8	3	0	48	3	12	11	3	17	53
19	2	5	10	1	47	5	26	46	2	29	57	4	2	51	3	9	18	3	25	50	4	1	53
26	9	5	10	1	16	5	27	57	3	4	27	4	9	36	3	17	50	4	9	50	4	15	39
Sept. 2	16	5	10	0	45	5	29	13	3	8	55	4	16	22	3	26	25	4	23	7	4	28	30
9	23	5	10	0	16	6	0	32	3	13	21	4	23	10	4	5	2	5	5	25	5	10	24
16	30	5	9	29	50	6	1	55	3	17	45	4	29	59	4	13	41	5	16	47	5	21	24
23	6	6	9	29	27	6	3	20	3	22	5	5	6	49	4	22	21	5	27	17	6	1	32
30	13	6	9	29	7	6	4	47	3	26	23	5	13	41	5	1	3	6	6	54	6	10	43
Oct. 7	20	6	9	28	51	6	6	16	4	0	39	5	20	35	5	9	46	6	15	25	6	18	36
14	27	6	9	28	40	6	7	46	4	4	51	5	27	30	5	18	31	6	22	13	6	24	17
21	4	7	9	28	34	6	9	17	4	9	0	6	4	27	5	27	16	6	25	49	6	25	45
28	11	7	9	28	33	6	10	49	4	13	6	6	11	26	6	6	2	6	23	38	6	20	33
Nov. 4	18	7	9	28	37	6	12	21	4	17	8	6	18	26	6	14	49	6	15	27	6	12	9
11	25	7	9	28	46	6	13	52	4	21	6	6	25	28	6	23	37	6	10	3	6	10	27
18	2	8	9	29	0	6	15	22	4	24	59	7	2	31	7	2	24	6	13	8	6	16	15
25	9	8	9	29	18	6	16	51	4	28	47	7	9	35	7	11	12	6	21	18	6	25	30
Dec. 2	16	8	9	29	42	6	18	19	5	2	30	7	16	41	7	20	0	7	1	22	7	5	53
9	23	8	10	0	5	6	19	31	5	5	35	7	23	47	7	27	33	7	11	59	7	16	36
16	30	8	10	0	41	6	21	5	5	9	35	8	0	54	8	7	36	7	22	48	7	27	27
23	7	9	10	1	16	6	22	24	5	12	55	8	8	2	8	16	24	8	3	43	8	8	27
30	14	9	10	1	54	6	23	39	5	16	6	8	15	10	8	25	12	8	14	49	8	19	39
Jan. 6	21	9	10	2	36	6	24	49	5	19	5	8	22	18	9	3	59	8	26	10	—		

Stationary :—Saturn—June 9 R. Oct. 27 D ; Jupiter— Feb. 7R, June 11D ; Mars— ; Venus—Januaray 15 R, February 26 D ; Mercury—February 25 R, March 19 D, June 28 R, July 22 D. October 23 R, November 12 D.

Date	Tithi & Month		*Nirayana* Long. of Moon (च ☽ 5) at 5-30 P.M.–I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 7	21	9	5 6 53	5 19 45	6 3 1	6 16 43	7 0 52	7 15 26	8 0 23
14	29	9	8 15 33	9 0 47	9 15 55	10 0 48	10 15 18	10 29 23	11 12 59
21	6	10	11 26 10	0 8 56	0 21 24	1 3 36	1 15 37	1 27 30	2 9 20
28	13	10	2 21 9	3 3 0	3 14 56	3 26 57	4 9 6	4 21 25	5 3 55
Feb. 4	20	10	5 16 38	5 29 37	6 12 54	6 26 30	7 10 27	7 24 43	8 9 16
11	27	10	8 24 3	9 8 58	9 23 52	10 8 37	10 23 7	11 7 16	11 21 0
18	5	11	0 4 19	0 17 13	0 29 45	1 12 0	1 24 1	2 5 54	2 17 43
25	11	11	2 29 32	3 11 26	3 23 17	4 5 39	4 18 3	5 0 39	5 13 30
Mar. 4	18	11	5 26 34	6 9 52	6 23 22	7 7 5	7 20 59	8 5 5	8 19 20
11	26	11	9 3 41	9 18 8	10 2 35	10 16 58	11 1 12	11 15 10	11 28 49
18	3	12	0 12 7	0 25 3	1 7 39	1 19 56	2 1 59	2 13 52	2 25 41
25	10	12	3 7 31	3 19 27	4 1 34	4 13 54	4 26 31	5 9 26	5 22 39
Apr. 1	16	12	6 6 9	6 19 52	7 3 47	7 17 48	8 1 54	8 16 2	9 0 10
8	24	12	9 14 16	9 28 21	10 12 23	10 26 13	11 10 6	11 23 43	0 7 5
15	2	1	0 20 12	1 3 1	1 15 32	1 27 47	2 9 49	2 21 42	3 3 31
22	8	1	3 15 21	3 27 18	4 9 26	4 21 51	5 4 36	5 17 44	6 1 15
29	15	1	6 15 7	6 29 16	7 13 38	7 28 5	8 12 32	8 26 54	9 11 8
May 6	23	1	9 25 12	10 9 6	10 22 50	11 6 24	11 19 48	0 3 1	0 16 2
13	30	1	0 28 50	1 11 24	1 23 46	2 5 54	2 17 52	2 29 43	3 11 31
20	7	1	3 23 20	4 5 15	4 17 23	4 29 48	5 12 34	5 25 47	6 9 26
27	13	1	6 23 31	7 7 59	7 22 42	8 7 33	8 22 23	9 7 6	9 21 36
June 3	21	1	10 5 49	10 19 45	11 3 23	11 16 46	11 29 53	0 12 47	0 25 28
10	29	1	1 7 58	1 20 17	2 2 25	2 14 25	2 26 18	3 8 5	3 19 52
17	5	2	4 1 41	4 13 36	4 25 43	5 8 6	5 20 51	6 4 1	6 17 39
24	12	2	7 1 45	7 16 17	8 1 9	8 16 14	9 1 22	9 16 24	10 1 12
July 1	20	2	10 15 40	10 29 46	11 13 29	11 26 50	0 9 51	0 22 34	1 5 2
8	27	2	1 17 18	1 29 23	2 11 21	2 23 13	3 5 2	3 16 48	3 28 36
15	4	3	4 10 28	4 22 26	5 4 36	5 17 0	5 29 43	6 12 49	6 26 21
22	11	3	7 10 19	7 26 43	8 9 30	8 24 34	9 9 46	9 24 56	10 9 57
29	18	3	10 24 39	11 8 57	11 22 50	0 6 16	0 19 18	1 1 58	1 14 20
Aug. 5	26	3	1 26 28	2 8 26	2 20 17	3 2 5	3 13 52	3 25 40	4 7 33
12	2	4	4 19 32	5 1 40	5 13 58	5 26 30	6 9 17	6 22 22	7 5 48
19	9	4	7 19 36	8 3 47	8 18 18	9 3 7	9 18 8	10 3 12	10 18 12
26	17	4	11 2 58	11 17 24	0 1 24	0 14 57	0 28 3	1 10 45	1 23 7
Sept. 2	24	4	2 5 13	2 17 8	2 28 56	3 10 43	3 22 32	4 4 25	4 16 27
9	1	5	4 28 38	5 11 0	5 23 34	6 6 20	6 19 20	7 2 33	7 16 1
16	8	5	7 29 45	8 13 44	8 27 58	9 12 26	9 27 5	10 11 50	10 26 34
23	15	5	11 11 9	11 25 30	0 9 29	0 23 4	1 6 13	1 18 58	2 1 21
30	22	5	2 13 27	2 25 22	3 7 11	3 18 58	4 0 49	4 12 49	4 24 59
Oct. 7	29	5	5 7 24	5 20 3	6 2 57	6 16 6	6 29 26	7 12 58	7 26 39
14	6	6	8 10 29	8 24 26	9 8 30	9 22 41	10 6 57	10 21 16	11 5 35
21	14	6	11 19 43	0 3 50	0 17 36	1 1 2	1 14 7	1 26 50	2 9 13
28	21	6	2 21 20	3 3 15	3 15 4	3 26 52	4 8 44	4 20 47	5 3 4
Nov. 4	27	6	5 15 58	5 28 31	6 11 45	6 25 16	7 9 3	7 23 0	8 7 5
11	5	7	8 21 13	9 5 22	9 19 29	10 3 34	10 17 36	11 1 35	11 15 28
18	12	7	11 29 15	0 12 49	0 26 12	1 9 20	1 22 12	2 4 45	2 17 4
25	19	7	2 29 9	3 11 3	3 22 52	4 4 39	6 16 31	4 28 33	5 10 51
Dec. 2	26	7	5 23 27	6 6 27	6 19 50	7 3 37	7 17 45	8 2 7	8 16 40
9	3	8	9 1 15	9 15 47	10 0 12	10 14 26	10 28 28	11 12 18	11 25 54
16	11	8	0 9 18	0 22 29	1 5 23	1 18 13	2 0 40	2 13 6	2 25 15
23	18	8	3 7 14	3 19 6	4 0 54	4 12 41	4 24 33	5 6 33	5 18 47
30	24	8	6 1 20	6 14 16	6 27 38	7 11 27	7 25 41	8 10 17	8 25 9
Jan. 6	1	9	9 10 8	—	—	—	—	—	—

Rahu (रा ☊ पा) on 1st of each month	Jan. :	9 28 37	9 26 58	9 25 29	9 23 50
	May :	9 22 15	9 20 36	9 19 1	9 17 22
	Sept. :	9 15 44	9 14 9	9 12 30	9 10 55

1935 A.D. 1341-42 B.S. *Ayanamsa* 22° 57′ 17″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 6	21	9	10	2	36	6	24	49	5	19	5	8	22	18	9	3	59	8	26	10	9	1	7
13	28	9	10	3	20	6	25	54	5	21	52	8	29	26	9	12	47	9	7	49	9	12	51
20	6	10	10	4	6	6	26	53	5	24	24	9	6	34	9	21	33	9	19	34	9	24	30
27	13	10	10	4	54	6	27	46	5	26	38	9	13	41	10	0	19	10	0	41	10	4	47
Feb. 3	20	10	10	5	43	6	28	32	5	28	32	9	20	42	10	9	4	10	8	56	10	10	38
10	27	10	10	6	34	6	29	11	6	0	2	9	27	53	10	17	47	10	10	29	10	8	35
17	5	11	10	7	25	6	29	41	6	1	5	10	4	57	10	26	30	10	4	27	10	1	7
24	12	11	10	8	16	7	0	3	6	1	37	10	12	0	11	5	11	9	27	38	9	26	12
Mar 3	19	11	10	9	6	7	0	17	6	1	34	10	19	2	11	13	50	9	25	57	9	26	50
10	26	11	10	9	56	7	0	21	6	0	54	10	26	3	11	22	27	9	29	9	10	1	34
17	3	12	10	10	46	7	0	16	5	29	36	11	3	1	0	1	2	10	5	30	10	8	54
24	10	12	10	11	33	7	0	1	5	27	43	11	9	58	0	9	34	10	13	54	10	17	58
31	17	12	10	12	19	6	29	38	5	25	23	11	16	54	0	18	4	10	23	46	10	28	23
Apr. 7	24	12	10	13	3	6	29	7	5	22	45	11	23	48	0	26	30	11	4	54	11	10	2
14	1	1	10	13	45	6	28	29	5	20	4	0	0	40	1	4	53	11	17	15	11	22	55
21	8	1	10	14	23	6	27	44	5	17	37	0	7	30	1	13	13	0	0	50	0	7	2
28	15	1	10	14	59	6	26	55	5	15	35	0	14	19	1	21	28	0	15	31	0	21	59
May 5	22	1	10	15	31	6	26	3	5	14	7	0	21	7	1	29	38	1	0	29	1	6	37
12	29	1	10	15	59	6	25	10	5	13	18	0	27	53	2	7	44	1	14	15	1	19	27
19	5	2	10	16	23	6	24	17	5	13	7	1	4	38	2	15	43	1	25	37	1	29	38
26	12	2	10	16	43	6	23	26	5	13	34	1	11	21	2	23	34	2	4	7	2	6	49
June 2	19	2	10	16	58	6	22	40	5	14	34	1	18	4	3	1	18	2	9	26	2	10	37
9	26	2	10	17	9	6	21	59	5	16	5	1	24	46	3	8	53	2	11	8	2	10	45
16	1	3	10	17	15	6	21	25	5	18	2	2	1	28	3	16	15	2	9	19	2	7	46
23	8	3	10	17	16	6	20	58	5	20	22	2	8	8	3	23	23	2	5	29	2	3	57
30	15	3	10	17	12	6	20	40	5	23	3	2	14	49	4	0	14	2	2	35	2	2	17
July 7	22	3	10	17	4	6	20	30	5	26	1	2	21	29	4	6	44	2	3	2	2	4	28
14	29	3	10	16	51	6	20	29	5	29	16	2	28	10	4	12	46	2	7	35	2	10	45
21	5	4	10	16	33	6	20	37	6	2	43	3	4	50	4	18	13	2	16	5	2	20	49
28	12	4	10	16	12	6	20	54	6	6	23	3	11	32	4	22	54	2	28	0	3	3	52
Aug. 4	19	4	10	15	47	6	21	19	6	10	15	3	18	14	4	26	36	3	12	4	3	18	18
11	26	4	10	15	20	6	21	52	6	14	16	3	24	56	4	29	1	3	26	31	4	2	30
18	1	5	10	14	50	6	22	32	6	18	28	4	1	39	4	29	49	4	10	10	4	15	40
25	8	5	10	14	19	6	23	20	6	22	44	4	8	24	4	28	44	4	23	42	4	27	44
Sept. 1	15	5	10	13	47	6	24	14	6	27	9	4	15	10	4	25	50	5	4	8	5	8	43
8	22	5	10	13	15	6	35	14	7	1	42	4	21	57	4	21	44	5	14	32	5	18	40
15	29	5	10	12	44	6	26	20	7	6	21	4	28	46	4	17	37	5	23	50	5	27	26
22	5	6	10	12	15	6	27	30	7	11	6	5	5	36	4	14	42	6	1	46	6	4	35
29	12	6	10	11	49	6	28	45	7	15	57	5	12	28	4	13	39	6	7	36	6	9	8
Oct. 6	19	6	10	11	25	7	0	4	7	20	53	5	19	21	4	14	31	6	9	52	6	9	10
13	26	6	10	11	6	7	1	27	7	25	53	5	26	16	4	17	2	6	6	22	6	3	4
20	3	7	10	10	51	7	2	52	8	0	58	6	3	13	4	20	54	5	28	17	5	25	32
27	10	7	10	10	40	7	4	20	8	6	7	6	10	11	4	25	49	5	24	17	5	25	15
Nov. 3	17	7	10	10	32	7	5	50	8	11	20	6	17	11	5	1	30	5	28	36	6	2	9
10	24	7	10	10	34	7	7	22	8	16	36	6	24	13	5	7	49	6	7	42	6	12	12
17	1	8	10	10	38	7	8	54	8	21	54	7	1	16	5	14	36	6	18	25	6	23	9
24	8	8	10	10	48	7	10	26	8	27	16	7	8	20	5	21	46	6	29	29	7	4	14
Dec. 1	15	8	10	11	3	7	12	2	9	2	39	7	15	25	5	29	14	7	10	32	7	15	15
8	22	8	10	11	22	7	13	35	9	8	5	7	22	32	6	6	56	7	21	32	7	26	15
15	29	8	10	11	46	7	15	9	9	13	31	7	29	38	6	14	50	8	2	33	8	7	18
22	6	9	10	12	15	7	16	40	9	18	59	8	6	46	6	22	53	8	13	40	8	18	28
29	13	9	10	12	47	7	18	11	9	24	28	8	13	54	7	1	3	8	24	53	8	29	42
Jan 5	20	9	10	13	22	7	19	38	9	29	56	8	21	1	7	9	18	9	6	2		—	

Stationary :—Saturn—June 22 R, November 8 D; Jupiter—March 10 R, July 12 D; Mars—Feb. 27 R, May 18 D; Venus—August 18R, Sept. 30D; Mercury—Feb. 8R, March 2 D, June 9 R, July 3 D, October 6 R, 27 D.

EPHEMERIS Śaka era 1856-57, Saṁvat 1991-92 1935 A D

Date	*Tithi & Month*		*Nirayana* Long. of Moon (च ☽ 5) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 6	1	9	9	10	8	9	25	7	10	9	57	10	24	31	11	8	47	11	22	42	0	6	16
13	9	9	0	19	30	1	2	25	1	15	05	1	27	32	2	9	47	2	21	53	3	3	51
20	16	9	3	15	44	3	27	33	4	9	21	4	21	10	5	3	4	5	15	5	5	27	19
27	22	9	6	9	48	6	22	37	7	5	50	7	19	29	8	3	35	8	18	7	9	3	1
Feb. 3	30	9	9	18	9	10	3	23	10	18	33	11	3	29	11	18	4	0	2	13	0	15	55
10	7	10	0	29	11	1	12	3	1	24	35	2	6	51	2	18	55	3	0	50	3	12	40
17	14	10	3	24	29	4	6	17	4	18	8	5	0	2	5	12	3	5	24	11	6	6	30
24	21	10	6	19	1	7	1	49	7	14	55	7	28	23	8	12	15	8	26	32	9	11	12
Mar. 3	28	10	9	26	11	10	11	21	10	26	33	11	11	38	11	26	24	0	10	46	0	24	39
10	6	11	1	8	3	1	20	59	2	3	32	2	15	45	2	27	45	3	9	37	3	21	24
17	13	11	4	3	11	4	15	1	4	26	57	5	9	0	5	21	12	6	3	33	6	16	5
24	19	11	6	28	47	7	11	42	7	24	52	8	8	17	8	22	0	9	6	3	9	20	24
31	27	11	10	5	3	10	19	54	11	4	51	11	19	45	0	4	27	0	18	48	1	2	45
Apr. 7	4	12	1	16	13	1	29	14	2	11	50	2	24	6	3	6	7	3	17	59	3	29	47
14	11	12	4	11	36	4	23	29	5	5	32	5	17	44	6	0	9	6	12	47	6	25	37
21	18	12	7	8	38	7	21	51	8	5	14	8	18	49	9	2	35	9	16	32	10	0	42
28	25	12	10	15	2	10	29	31	11	14	3	11	28	33	0	12	55	0	27	01	1	10	47
May 5	3	1	1	24	9	2	7	8	2	19	45	3	2	3	3	14	6	3	26	0	4	7	49
12	9	1	4	19	40	5	1	37	5	13	45	5	26	5	6	8	41	6	21	34	7	4	43
19	16	1	7	18	6	8	01	43	8	15	29	8	29	23	9	13	24	9	27	30	10	11	39
26	24	1	10	25	50	11	10	1	11	24	10	0	8	14	0	22	8	1	5	49	1	19	14
June 2	1	2	2	2	21	2	15	10	2	27	41	3	9	56	3	21	58	4	3	53	4	15	43
9	8	2	4	27	35	5	9	34	5	21	43	6	4	7	6	16	50	6	29	52	7	13	15
16	15	2	7	26	58	8	10	57	8	25	9	9	9	29	9	23	54	10	8	17	10	22	37
23	22	2	11	6	51	11	20	55	0	4	49	0	18	31	1	2	0	1	15	16	1	28	16
30	30	2	2	11	3	2	23	36	3	5	55	3	18	3	4	0	2	4	11	55	4	23	46
July 7	6	3	5	5	27	5	17	35	5	29	44	6	12	7	6	24	50	7	7	54	7	21	23
14	13	3	8	5	16	8	19	30	9	4	3	9	18	49	10	3	39	10	18	27	11	3	6
21	21	3	11	17	31	0	1	38	0	15	27	0	28	56	1	12	8	1	25	3	2	7	43
28	28	3	2	20	11	3	2	27	3	14	35	3	26	35	4	8	29	4	20	20	5	2	9
Aug. 4	5	4	5	14	1	5	25	59	6	8	6	6	20	26	7	3	5	7	16	5	7	29	30
11	12	4	8	13	22	8	27	41	9	12	23	9	27	23	10	12	33	10	27	42	11	12	42
18	19	4	11	27	24	0	11	42	0	25	35	1	9	2	1	22	5	2	4	49	2	17	15
25	27	4	2	29	29	3	11	33	3	23	31	4	5	24	4	17	16	4	29	5	5	10	56
Sept. 1	3	5	5	22	51	6	4	51	6	16	59	6	29	19	7	11	54	7	24	49	8	8	6
8	10	5	8	21	49	9	6	0	9	20	38	10	5	38	10	20	52	11	6	12	11	21	24
15	18	5	0	6	20	0	20	51	1	4	53	1	18	25	2	1	29	2	14	10	2	26	31
22	25	5	3	8	38	3	20	36	4	2	28	4	14	17	4	26	7	5	8	0	5	19	56
29	2	6	6	1	58	6	14	5	6	26	21	7	8	47	7	21	25	8	4	18	8	17	31
Oct. 6	9	6	9	1	5	9	15	3	9	29	26	10	14	12	10	29	15	11	14	26	11	29	36
13	16	6	0	14	34	0	29	10	1	13	18	1	26	57	2	10	7	2	22	51	3	5	13
20	24	6	3	17	20	3	29	17	4	11	7	4	22	57	5	4	48	5	16	45	5	28	49
27	30	6	6	11	0	6	23	21	7	5	51	7	18	31	8	1	21	8	14	24	8	27	41
Nov. 3	7	7	9	11	14	9	25	5	10	9	14	10	23	40	11	8	20	11	23	9	0	7	59
10	15	7	0	22	41	1	7	8	1	21	12	2	4	51	2	18	4	3	0	52	3	13	19
17	22	7	3	25	29	4	7	28	4	19	20	5	1	11	5	13	4	5	25	5	6	7	15
24	29	7	6	19	37	7	2	12	7	15	0	7	28	0	8	11	13	8	24	37	9	8	11
Dec 1	6	8	9	21	56	10	5	51	10	19	56	11	4	9	11	18	28	0	2	50	0	17	10
8	13	8	1	1	24	1	15	26	1	29	13	2	12	40	2	25	48	3	8	34	3	21	3
15	20	8	4	3	15	4	15	16	4	27	11	5	9	3	5	20	57	6	2	59	6	15	12
22	27	8	6	27	39	7	10	24	7	23	27	8	6	48	8	20	25	9	4	17	9	16	19
29	4	9	10	2	29	10	16	43	11	0	58	11	15	11	11	29	20	0	13	22	0	27	16
Jan 5	12	9	1	10	59	—			—			—			—			—			—		

Rahu (रा ☊ चं) on 1st of each month

Jan.	9 9 16	9 7 38	9 6 9	9 4 30
May	9 2 55	9 1 16	8 29 41	8 28 3
Sept.	8 26 24	8 24 49	8 23 10	8 21 35

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																			
			শ ♄ শ			বৃ ♃ বৃ			ম: ♂ ম			র ☉ র			শু ♀ শু			বু ☿ বু			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 5	20	9	10	13	22	7	19	38	9	29	56	8	21	1	7	9	18	9	6	2	9	10	38
12	27	9	10	14	1	7	21	3	10	5	25	8	28	9	7	17	39	9	16	20	9	20	1
19	5	10	10	14	44	7	22	26	10	10	53	9	5	17	7	26	3	9	23	31	9	24	37
26	12	10	10	15	29	7	23	45	10	16	22	9	12	25	8	4	31	9	23	30	9	20	50
Feb. 2	19	10	10	16	16	7	24	59	10	21	49	9	19	31	8	13	1	9	16	2	9	12	40
9	26	10	10	17	4	7	26	9	10	27	15	9	26	37	8	21	32	9	9	43	9	8	56
16	3	11	10	17	54	7	27	13	11	2	40	10	3	41	9	0	6	9	9	34	9	11	4
23	10	11	10	18	45	7	28	11	11	8	4	10	10	45	9	8	40	9	14	4	9	16	55
Mar. 1	17	11	10	19	36	7	29	3	11	13	26	10	17	47	9	17	15	9	21	19	9	24	58
8	24	11	10	20	28	7	29	48	11	18	45	10	24	47	9	25	50	10	0	14	10	4	27
15	2	12	10	21	19	8	0	25	11	24	3	11	1	46	10	4	26	10	10	23	10	15	4
22	9	12	10	22	10	8	0	54	11	29	18	11	8	44	10	12	52	10	21	36	10	26	44
29	16	12	10	22	59	8	1	14	0	4	32	11	15	40	10	21	39	11	3	52	11	9	28
Apr. 5	23	12	10	23	47	8	1	25	0	9	42	11	22	34	11	0	15	11	17	15	11	23	19
12	30	12	10	24	34	8	1	28	0	14	51	11	29	26	11	8	51	0	1	37	0	7	57
19	6	1	10	25	18	8	1	21	0	19	57	0	6	17	11	17	27	0	16	17	0	22	18
26	13	1	10	26	0	8	1	5	0	25	0	0	13	6	11	26	3	0	29	43	1	4	41
May 3	20	1	10	26	38	8	0	40	1	0	2	0	19	54	0	4	39	1	10	23	1	13	55
10	27	1	10	27	14	8	0	7	1	5	0	0	26	40	0	13	14	1	17	34	1	19	29
17	3	2	10	27	47	7	29	28	1	9	57	1	3	25	0	21	50	1	20	53	1	21	4
24	10	2	10	28	15	7	28	42	1	14	51	1	10	9	1	0	25	1	20	17	1	19	3
31	17	2	10	28	40	7	27	52	1	19	42	1	16	52	1	9	0	1	16	55	1	15	16
June 7	24	2	10	29	0	7	27	0	1	24	32	1	23	34	1	17	36	1	13	29	1	12	42
14	31	2	10	29	15	7	26	6	1	29	19	2	0	15	1	26	11	1	12	39	1	13	24
21	7	3	10	29	26	7	25	14	2	4	4	2	6	56	2	4	47	1	15	28	1	17	47
28	14	3	10	29	32	7	24	24	2	8	47	2	13	37	2	13	23	1	21	50	1	25	33
July 5	21	3	10	29	34	7	23	38	2	13	28	2	20	17	2	21	59	2	1	24	2	6	24
12	28	3	10	29	30	7	22	59	2	18	7	2	26	58	3	0	36	2	13	49	2	19	49
19	3	4	10	29	22	7	22	26	2	22	45	3	3	38	3	9	12	2	28	13	3	4	36
26	10	4	10	29	8	7	22	1	2	27	21	3	10	20	3	17	50	3	13	2	3	19	10
Aug. 2	17	4	10	28	51	7	21	45	3	1	55	3	17	1	3	26	27	3	27	0	4	2	37
9	24	4	10	28	29	7	21	38	3	6	27	3	23	43	4	5	5	4	9	45	4	14	49
16	31	4	10	28	4	7	21	40	3	10	59	4	0	27	4	13	43	4	21	13	4	25	45
23	7	5	10	27	36	7	21	51	3	15	28	4	7	11	4	22	21	5	1	28	5	5	28
30	14	5	10	27	6	7	22	10	3	19	56	4	13	57	5	0	59	5	10	23	5	13	44
Sept. 6	21	5	10	26	35	7	22	38	3	24	23	4	20	43	5	9	37	5	17	38	5	20	3
13	28	5	10	26	2	7	23	15	3	28	49	4	27	32	5	18	14	5	22	24	5	23	21
20	4	6	10	25	30	7	23	59	4	3	13	5	4	22	5	26	52	5	23	13	5	21	54
27	11	6	10	24	59	7	24	50	4	7	36	5	11	13	6	5	29	5	18	34	5	15	15
Oct. 4	18	6	10	24	30	7	25	48	4	11	57	5	18	6	6	14	5	5	11	2	5	8	58
11	25	6	10	24	3	7	26	52	4	16	17	5	25	1	6	22	41	5	8	36	5	10	9
18	1	7	10	23	40	7	28	1	4	20	36	6	1	58	7	1	16	5	14	7	5	18	4
25	8	7	10	23	21	7	29	16	4	24	53	6	8	56	7	9	51	5	24	5	5	28	54
Nov. 1	15	7	10	23	5	8	0	35	4	29	8	6	15	55	7	18	25	6	5	28	6	10	25
8	22	7	10	22	55	8	1	57	5	3	22	6	22	57	7	26	58	6	16	58	6	21	51
15	29	7	10	22	50	8	3	24	5	7	34	6	29	59	8	5	39	6	28	17	7	3	3
22	6	8	10	22	49	8	4	53	5	11	44	7	7	3	8	11	0	7	9	22	7	14	4
29	13	8	10	22	54	8	6	24	5	15	51	7	14	8	8	22	28	7	20	19	7	24	59
Dec. 6	20	8	10	23	5	8	7	58	5	19	57	7	21	14	9	0	54	8	1	12	8	5	51
13	27	8	10	23	20	8	9	33	5	23	59	7	28	22	9	9	17	8	12	1	8	16	36
20	5	9	10	23	40	8	11	9	5	27	58	8	5	29	9	17	32	8	22	34	8	26	50
27	12	9	10	24	5	8	12	46	6	1	54	8	12	37	9	25	51	9	2	1	9	5	14
Jan. 3	19	9	10	24	33	8	14	22	6	5	44	8	19	44	10	3	59	9	8	2		—	

Stationary ;—Saturn—July 4 R, November 19D ; Jupiter—April 11 R, August 12 D ; Mars— ; Venus— ; Mercury—January 23 R, Feb 13 D, May 20 R, June 13 D, September 18 R, October 10 D.

Nirayana Long. of Moon (च ☽ ठ) at 5-30 P.M. I.S.T.

Date	*Tithi & Month*	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 5	12 9	1 10 59	1 24 32	2 7 52	2 20 59	3 3 50	3 16 27	3 28 51
12	19 9	4 11 2	4 23 3	5 4 58	5 16 50	5 28 44	6 10 44	6 22 55
19	25 9	7 5 21	7 18 8	8 1 16	8 14 48	8 28 44	9 12 59	9 27 31
26	2 10	10 12 12	10 26 54	11 11 32	11 25 59	0 10 12	0 24 8	1 7 48
Feb. 2	10 10	1 21 12	2 4 20	2 17 16	3 0 0	3 12 32	3 24 55	4 7 8
9	17 10	4 19 13	5 1 12	5 13 6	5 24 57	6 6 50	6 18 48	7 0 53
16	24 10	7 13 17	7 25 58	8 9 3	8 22 35	9 6 34	9 21 1	10 5 50
23	1 11	10 20 54	11 6 2	11 21 6	0 5 54	0 20 23	1 4 26	1 18 6
Mar. 1	8 11	2 1 22	2 14 19	2 26 59	3 9 26	3 21 43	4 3 52	4 15 55
8	15 11	4 27 53	5 9 48	5 21 40	6 3 32	6 15 26	6 27 25	7 9 31
16	22 11	7 21 50	8 4 26	8 17 24	9 0 48	9 14 41	9 29 4	10 13 53
22	29 11	10 29 3	11 14 22	11 29 41	0 14 47	0 29 31	1 13 48	1 27 37
29	7 12	2 10 57	2 23 53	3 6 29	3 18 49	4 0 57	4 12 58	4 24 54
Apr. 5	14 12	5 6 47	5 18 39	6 0 32	6 12 28	6 24 26	7 6 30	7 18 42
12	20 12	8 1 5	8 13 42	8 26 38	9 9 56	9 23 40	10 7 51	10 22 28
19	28 12	11 7 27	11 22 39	0 7 55	0 23 2	1 7 53	1 22 18	2 6 15
26	5 1	2 19 43	3 2 45	3 15 24	3 27 45	4 9 52	4 21 50	5 3 43
May. 3	12 1	5 15 35	5 27 27	6 9 23	6 21 24	7 3 32	7 15 46	7 28 10
10	19 1	8 10 45	8 23 33	9 6 36	9 19 57	10 3 38	10 17 40	11 2 2
17	26 1	11 16 42	0 1 34	0 16 30	1 1 33	1 16 3	2 0 24	2 14 21
24	4 2	2 27 53	3 10 59	3 23 43	4 6 7	4 18 17	5 0 16	5 12 10
31	11 2	5 24 2	6 5 57	6 17 57	7 0 5	7 12 22	7 24 51	8 7 33
June 7	18 2	8 20 26	9 3 34	9 16 54	10 0 29	10 14 17	10 28 18	11 12 31
14	25 2	11 26 54	0 11 23	0 25 53	1 10 20	1 24 38	2 8 42	2 22 27
21	2 3	3 5 53	3 18 57	4 1 41	4 14 7	4 26 19	5 8 20	5 20 15
28	9 3	6 2 8	6 14 4	6 26 7	7 8 20	7 20 48	8 3 30	8 16 30
July. 5	16 3	8 29 46	9 13 18	9 27 4	10 11 1	10 25 7	11 9 18	11 23 32
12	23 3	0 7 46	0 21 58	1 6 4	1 20 4	2 3 55	2 17 34	3 0 59
19	1 4	3 14 9	3 27 4	4 9 42	4 22 5	5 4 16	5 16 16	5 28 11
26	8 4	6 10 3	6 21 59	7 4 2	7 16 17	7 28 49	8 11 41	8 24 55
Aug. 2	14 4	9 8 31	9 22 27	10 6 41	10 21 6	11 5 36	11 20 7	0 4 32
9	22 4	0 18 47	1 2 51	1 16 43	2 0 22	2 13 48	2 27 3	3 10 6
16	29 4	3 22 57	4 5 36	4 18 3	5 0 19	5 12 25	5 24 23	6 6 15
23	6 5	6 18 5	6 29 58	7 11 59	7 24 12	8 6 43	8 19 37	9 2 57
30	13 5	9 16 43	10 0 56	10 15 31	11 0 22	11 15 19	0 0 13	0 14 56
Sept. 6	20 5	0 29 24	1 13 31	1 27 19	2 10 47	2 23 58	3 6 55	3 19 39
13	28 5	4 2 12	4 14 35	4 26 50	5 8 56	5 20 56	6 2 49	6 14 39
20	5 5	6 26 28	7 8 19	7 20 17	8 2 28	8 14 55	8 27 45	9 11 1
27	11 5	9 24 47	10 9 3	10 23 46	11 8 50	11 24 4	0 9 18	0 24 21
Oct. 4	19 5	1 9 5	1 23 26	2 7 20	2 20 49	3 3 56	3 16 45	3 29 17
11	26 5	4 11 38	4 23 49	5 5 52	5 17 50	5 29 44	6 11 35	6 23 24
18	3 6	7 5 14	7 17 8	7 29 8	8 11 18	8 23 44	9 6 30	9 19 39
25	10 6	10 3 17	10 17 24	11 1 59	11 16 58	0 2 12	0 17 32	1 2 45
Nov. 1	17 6	1 17 42	2 2 16	2 16 23	3 0 2	3 13 15	3 26 5	4 8 35
8	25 6	4 20 51	5 2 55	5 14 52	5 26 44	6 8 35	6 20 25	7 2 18
15	1 7	7 14 13	7 26 15	8 8 23	8 20 42	9 3 14	9 16 2	9 29 10
22	8 7	10 12 40	10 26 34	11 10 53	11 25 33	0 10 29	0 25 35	1 10 41
29	16 7	1 25 37	2 10 15	2 24 31	3 8 20	3 21 42	4 4 39	4 17 14
Dec. 6	23 7	4 29 31	5 11 34	5 23 29	6 5 20	6 17 9	6 29 1	7 10 58
13	30 7	7 23 3	8 5 17	8 17 41	9 0 17	9 13 5	9 26 8	10 9 25
20	7 8	10 22 58	11 6 46	11 20 51	0 5 10	0 19 41	1 4 20	1 19 1
27	14 8	2 3 39	2 18 5	3 2 15	3 16 4	3 29 31	4 12 32	4 25 13
Jan. 3	21 8	5 7 34	—	—	—	—	—	—

Rahu (रा ☊ चा) on 1st of each month					
	Jan. :	8 19 56	8 18 17	8 16 45	8 15 6
	May :	8 13 31	8 11 53	8 10 17	8 8 39
	Sept. :	8 7 0	8 5 25	8 3 46	8 2 11

1937 A.D. 1343-44 B.S. *Ayanamsa* 22° 59′ 0″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T on Sundays																				
			श ♄ न			बृ ♃ ह			म ♂ ग			र ☉ व			शु ♀ क्र			बु ☿ ध			♀ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 3	19	9	10	24	33	8	14	22	6	5	44	8	19	40	10	3	59	9	3	2	9	8	31
10	26	9	10	25	6	8	15	58	6	9	31	8	26	52	10	12	0	9	6	31	9	3	15
17	4	10	10	25	43	8	17	34	6	13	13	9	4	0	10	19	53	8	28	6	8	24	56
24	11	10	10	26	23	8	19	8	6	16	48	9	11	8	10	27	34	8	22	41	8	22	33
31	18	10	10	27	6	8	20	40	6	20	17	9	18	14	11	5	0	8	21	0	8	26	3
Feb. 7	25	10	10	27	52	8	22	11	6	23	38	9	25	20	11	12	9	8	29	39	9	2	52
14	2	11	10	28	39	8	23	38	6	26	49	10	2	25	11	18	55	9	7	37	9	11	29
21	9	11	10	29	29	8	25	2	6	29	49	10	9	29	11	25	13	9	16	58	9	21	17
28	16	11	11	0	19	8	26	23	7	2	37	10	16	31	0	0	54	9	27	19	10	2	1
Mar. 7	23	11	11	1	11	8	27	38	7	5	11	10	23	32	0	5	46	10	8	33	10	13	38
14	30	11	11	2	3	8	28	50	7	7	26	11	0	31	0	9	36	10	20	41	10	26	11
21	7	12	11	2	55	8	29	55	7	9	21	11	7	29	0	12	5	11	3	48	11	9	42
28	14	12	11	3	46	9	0	55	7	10	52	11	14	25	0	12	50	11	17	48	11	23	57
Apr. 4	21	12	11	4	37	9	1	48	7	11	57	11	21	19	0	11	38	0	2	3	0	7	53
11	28	12	11	5	27	9	2	34	7	12	29	11	28	12	0	8	31	0	15	1	0	19	41
18	5	1	11	6	16	9	3	12	7	12	27	0	5	3	0	4	20	0	24	49	0	27	45
25	12	1	11	7	3	9	3	42	7	11	49	0	11	12	0	0	12	1	0	21	1	1	18
May 2	19	1	11	7	48	9	4	4	7	10	33	0	18	40	11	27	22	1	1	16	1	0	24
9	26	1	11	8	30	9	4	17	7	8	44	0	25	27	11	26	28	0	28	25	0	26	38
16	2	2	11	9	9	9	4	20	7	6	30	1	2	12	11	27	26	0	24	23	0	23	8
23	9	2	11	9	46	9	4	14	7	4	3	1	8	56	0	0	0	0	22	20	0	22	30
30	16	2	11	10	19	9	3	59	7	1	38	1	15	39	0	3	50	0	23	46	0	25	27
June 6	23	2	11	10	48	9	3	35	6	29	31	1	22	22	0	8	38	0	28	38	1	1	39
13	30	2	11	11	13	9	3	3	6	27	53	1	29	3	0	14	10	1	6	27	1	10	36
20	6	3	11	11	33	9	2	24	6	26	53	2	5	44	0	20	14	1	16	52	1	22	5
27	13	3	11	11	49	9	1	38	6	26	33	2	12	25	0	26	45	1	29	41	2	5	47
July 4	20	3	11	12	1	9	0	48	6	26	53	2	19	5	1	3	36	2	14	18	2	20	48
11	27	3	11	12	7	8	29	55	6	27	51	2	25	46	1	10	44	2	29	24	3	5	39
18	2	4	11	12	9	8	29	1	6	29	24	3	2	26	1	18	5	3	13	39	3	19	21
25	9	4	11	12	5	8	28	8	7	1	27	3	9	7	1	25	37	3	26	32	4	1	37
Aug. 1	16	4	11	11	57	8	27	17	7	3	57	3	15	49	2	3	18	4	7	59	4	12	28
8	23	4	11	11	44	8	26	31	7	6	50	3	22	31	2	11	8	4	18	0	4	21	50
15	30	4	11	11	27	8	25	51	7	10	4	3	29	14	2	19	4	4	26	27	4	29	29
22	6	5	11	11	5	8	25	18	7	13	35	4	5	58	2	27	7	5	2	52	5	4	49
29	13	5	11	10	40	8	24	53	7	17	21	4	12	44	3	5	16	5	6	24	5	6	42
Sept. 5	20	5	11	10	12	8	24	37	7	21	21	4	19	31	3	13	30	5	5	41	5	3	50
12	27	5	11	9	41	8	24	30	7	25	33	4	26	19	3	21	48	5	0	11	4	27	7
19	3	6	11	9	10	8	24	33	7	29	56	5	3	8	4	0	11	4	23	44	4	22	38
26	10	6	11	8	37	8	24	45	8	4	27	5	9	59	4	8	38	4	23	2	4	25	7
Oct. 3	17	6	11	8	4	8	25	6	8	9	7	5	16	52	4	17	9	4	29	39	5	3	59
10	24	6	11	7	33	8	25	37	8	13	53	5	23	47	4	25	43	5	10	27	5	15	34
17	31	6	11	7	3	8	26	15	8	18	46	6	0	43	5	4	20	5	22	28	5	27	38
24	7	7	11	6	37	8	27	2	8	23	44	6	7	41	5	12	59	6	4	26	6	9	26
31	14	7	11	6	13	8	27	56	8	28	46	6	14	40	5	21	40	6	16	0	6	20	51
Nov. 7	21	7	11	5	53	8	23	57	9	3	53	6	21	41	6	0	23	6	27	12	7	1	54
14	28	7	11	5	38	9	0	4	9	9	2	6	28	43	6	9	8	7	8	6	7	12	41
21	5	8	11	5	28	9	1	17	9	14	15	7	5	47	6	17	53	7	18	45	7	23	15
28	12	8	11	5	23	9	2	34	9	19	29	7	12	52	6	26	40	7	29	10	8	3	31
Dec. 5	19	8	11	5	23	9	3	57	9	24	45	7	19	58	7	5	27	8	9	5	8	13	1
12	26	8	11	5	28	9	5	23	10	0	2	7	27	5	7	14	15	8	17	39	8	20	23
19	4	9	11	5	39	9	6	53	10	5	20	8	4	12	7	23	3	8	22	29	8	22	22
26	11	9	11	5	55	9	8	25	10	10	39	8	11	20	8	1	51	8	19	34	8	15	51
Jan. 2	18	9	11	6	14	9	9	59	10	15	54	8	18	27	8	10	39	8	10	37		—	

Stationary :—Saturn—July 17R, Dec. 1D ; Jupiter—May 16R, Sept 14D, Mars—Apr. 15R, June 27D ; Venus—Mar 28R, May 9D ; Mercury—Jan 6R, Jan. 26D, Apr. 30 R, May 24 D, Sept. 2 R, Sept. 24 D, Dec. 21 R.

EPHEMERIS Saka era 1858-59, Samvat 1993-94 1937 A.D

Date	Tithi & Month		Nirayana Long. of Moon (च) 5) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 3	21	8	5	7	34	5	19	40	6	1	36	6	13	26	6	25	16	7	7	10	7	19	11
10	28	8	8	1	24	8	13	51	8	26	33	9	9	31	9	22	44	10	6	11	10	19	50
17	5	9	11	3	39	11	17	36	0	1	39	0	15	47	0	29	59	1	14	11	1	28	23
24	13	9	2	12	31	2	26	33	3	10	23	3	23	59	4	7	17	4	20	17	5	2	57
31	20	9	5	15	20	5	27	28	6	9	25	6	21	15	7	3	4	7	14	58	7	27	1
Feb. 7	26	9	8	9	18	8	21	54	9	4	50	9	18	7	10	1	44	10	15	39	10	29	47
14	3	10	11	14	2	11	28	20	0	12	37	0	26	49	1	10	54	1	24	52	2	8	42
21	11	10	2	22	25	3	5	59	3	19	23	4	2	37	4	15	38	4	28	24	5	10	56
28	18	10	5	23	14	6	5	20	6	17	15	6	29	5	7	10	53	7	22	46	8	4	48
Mar. 7	25	10	8	17	5	8	29	42	9	12	43	9	26	10	10	10	2	10	24	18	11	8	51
14	2	11	11	23	34	0	8	18	0	22	58	1	7	26	1	21	39	2	5	37	2	19	20
21	9	11	3	2	48	3	16	3	3	29	6	4	11	58	4	24	38	5	7	8	5	19	26
28	17	11	6	1	35	6	13	34	6	25	27	7	7	16	7	19	2	8	0	54	8	12	56
Apr. 4	23	11	8	25	10	9	7	44	9	20	43	10	4	10	10	18	5	11	2	27	11	17	19
11	30	11	0	2	12	0	17	18	1	2	19	1	17	8	2	1	38	2	15	48	2	29	35
18	8	12	3	13	2	3	26	9	4	9	0	4	21	37	5	4	1	5	16	16	5	28	21
25	15	12	6	10	20	6	22	13	7	4	2	7	15	49	7	27	38	8	9	32	8	21	36
May 2	21	12	9	3	50	9	16	23	9	29	19	10	12	40	10	26	20	11	10	45	11	25	27
9	29	12	0	10	28	0	25	39	1	10	51	1	25	54	2	10	41	2	25	8	3	9	3
16	6	1	3	22	37	4	5	46	4	18	34	5	1	5	5	13	20	5	25	25	6	7	22
23	13	1	6	19	13	7	1	2	7	12	50	7	24	40	8	6	34	8	18	35	9	0	45
30	20	1	9	13	7	9	25	44	10	8	40	10	21	58	11	5	39	11	19	44	0	4	12
June 6	27	1	0	19	0	1	4	1	1	19	8	2	4	12	2	19	4	3	3	36	3	17	44
13	5	2	4	1	26	4	14	41	4	27	32	5	10	3	5	22	16	6	4	17	6	16	9
20	12	2	6	27	58	7	9	46	7	21	36	8	3	32	8	15	35	8	27	48	9	10	11
27	19	2	9	22	47	10	5	36	10	18	41	11	2	2	11	15	40	11	29	36	0	13	49
July 4	26	2	0	28	19	1	13	0	1	27	49	2	12	38	2	27	21	3	11	49	3	25	57
11	4	3	4	9	42	4	23	1	5	5	55	5	18	28	6	0	41	6	12	42	6	24	33
18	10	3	7	6	22	7	18	11	8	0	5	8	12	8	8	24	23	9	6	51	9	19	32
25	17	3	10	2	28	10	15	37	10	28	59	11	12	33	11	26	18	0	10	13	0	24	17
Aug. 1	24	3	1	8	31	1	22	51	2	7	17	2	21	43	3	6	4	3	20	16	4	4	13
8	2	4	4	17	50	5	1	5	5	13	54	5	26	30	6	9	44	6	20	44	7	2	38
15	9	4	7	14	24	7	26	15	8	8	13	8	20	22	9	2	46	9	15	26	9	28	29
22	15	4	10	11	46	10	25	20	11	9	6	11	23	1	0	7	3	0	21	8	1	5	14
29	23	4	1	19	21	2	3	28	2	17	33	3	1	34	3	15	31	3	29	18	4	12	56
Sept.5	1	5	4	26	14	5	9	17	5	22	1	6	4	28	6	16	39	6	28	38	7	10	23
12	7	5	7	22	16	8	4	7	8	16	5	8	28	17	9	10	46	9	23	37	10	6	50
19	14	5	10	20	28	11	4	22	11	18	33	0	2	55	0	17	21	1	1	46	1	16	6
26	22	5	2	0	19	2	14	23	2	28	17	3	12	1	3	25	35	4	8	56	4	22	9
Oct. 3	29	5	5	5	8	5	17	52	6	0	23	6	12	40	6	24	44	7	6	39	7	18	28
10	6	6	8	0	15	8	12	4	8	24	1	9	6	11	9	18	40	10	1	37	10	14	47
17	12	6	10	28	30	11	12	38	11	27	7	0	11	51	0	26	42	1	11	33	1	26	15
24	20	6	2	10	45	2	24	59	3	8	55	3	22	33	4	5	54	4	19	0	5	1	51
31	27	6	5	14	28	5	26	51	6	9	9	6	21	14	7	3	10	7	15	1	7	26	56
Nov. 7	4	7	8	8	34	8	20	24	9	2	20	9	14	28	9	26	53	10	9	39	10	22	49
14	11	7	11	6	27	11	20	32	0	5	3	0	19	55	1	5	1	1	20	11	2	5	17
21	18	7	2	20	9	3	4	41	3	18	50	4	2	34	4	15	54	4	28	53	5	11	32
28	26	7	5	23	56	6	6	8	6	18	9	7	0	4	7	11	54	7	23	42	8	5	29
Dec 5	2	8	8	17	18	8	29	12	9	11	12	9	23	23	10	5	47	10	18	29	11	1	31
12	9	8	11	14	57	11	28	50	0	13	8	0	27	50	1	12	52	1	28	5	2	13	20
19	17	8	2	28	27	3	13	16	3	27	41	4	11	39	4	25	7	5	8	9	5	20	47
26	24	8	6	3	6	6	15	10	6	27	5	7	8	53	7	20	40	8	2	27	8	14	16
Jan 2	1	9	8	26	12		—			—			—			—			—			—	

Rahu (रा ऊ ग्रा) on 1st of each month	Jan	8 0 32	7 28 53	7 27 24	7 25 46
	May	7 24 10	7 22 32	7 20 57	7 19 18
	Sept.	7 17 40	7 16 4	7 14 26	7 12 50

1938 A.D. 1344-45 B.S. *Ayanamsa* 22° 59′ 49″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																		☿ Wednes		
			शा	♄	श	बृ	♃	बृ	म	♂	म	र	☉	र	शु	♀	शु	बु	☿	बु			
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 2	18	9	11	6	14	9	9	59	10	15	54	8	18	27	8	10	39	8	10	37	8	7	49
9	25	9	11	6	40	9	11	36	10	21	12	8	25	35	8	19	27	8	6	21	8	6	50
16	2	10	11	7	9	9	13	14	10	26	29	9	2	43	8	28	15	8	9	4	8	11	35
23	9	10	11	7	43	9	14	54	11	1	44	9	9	50	9	7	3	8	15	43	8	19	14
30	16	10	11	8	21	9	16	33	11	6	59	9	16	57	9	15	51	8	24	19	8	28	22
Feb. 6	23	10	11	9	1	9	18	13	11	12	12	9	24	4	9	24	38	9	4	1	9	8	25
13	1	11	11	9	45	9	19	52	11	17	24	10	1	9	10	3	25	9	14	30	9	19	13
20	8	11	11	10	31	9	21	31	11	22	34	10	8	12	10	12	11	9	25	42	10	0	44
27	15	11	11	11	19	9	23	8	11	27	42	10	15	15	10	20	56	10	7	40	10	13	3
Mar. 6	22	11	11	12	9	9	24	43	0	2	48	10	22	16	10	29	40	10	20	28	10	26	12
13	29	11	11	13	0	9	26	16	0	7	51	10	29	16	11	8	24	11	4	2	11	9	59
20	6	12	11	13	52	9	27	46	0	12	53	11	6	14	11	17	6	11	17	49	11	23	26
27	13	12	11	14	45	9	29	13	0	17	53	11	13	10	11	25	47	0	0	12	0	4	31
Apr. 3	20	12	11	15	37	10	0	36	0	22	50	11	20	5	0	4	27	0	8	58	0	11	10
10	27	12	11	16	30	10	1	55	0	27	46	11	26	58	0	13	6	0	12	32	0	12	25
17	4	1	11	17	21	10	3	17	1	2	39	0	3	49	0	21	42	0	10	56	0	9	7
24	11	1	11	18	12	10	4	18	1	7	31	0	10	39	1	0	18	0	6	22	0	4	30
May 1	18	1	11	19	1	10	5	22	1	12	20	0	17	27	1	8	52	0	2	45	0	2	12
8	25	1	11	19	48	10	6	18	1	17	7	0	24	14	1	17	24	0	2	34	0	3	39
15	1	2	11	20	34	10	7	8	1	21	53	1	0	59	1	25	55	0	6	3	0	8	30
22	8	2	11	21	17	10	7	50	1	26	36	1	7	44	2	4	24	0	12	33	0	16	5
29	15	2	11	21	57	10	8	25	2	1	18	1	14	27	2	12	51	0	21	28	0	25	57
June 5	22	2	11	22	34	10	8	50	2	5	58	1	21	9	2	21	16	1	2	32	1	7	54
12	29	2	11	23	8	10	9	7	2	10	37	1	27	51	2	29	38	1	15	36	1	21	46
19	4	3	11	23	37	10	9	15	2	15	14	2	4	32	3	7	58	2	0	21	2	6	55
26	11	3	11	24	3	10	9	13	2	19	50	2	11	13	3	16	15	2	15	37	2	21	58
July 3	18	3	11	24	25	10	9	1	2	24	24	2	17	53	3	24	30	3	0	4	3	5	50
10	25	3	11	24	41	10	8	41	2	28	58	2	24	34	4	2	40	3	13	2	3	18	5
17	1	4	11	24	54	10	8	12	3	3	30	3	1	14	4	10	46	3	24	22	3	28	43
24	8	4	11	25	1	10	7	35	3	8	1	3	7	55	4	18	48	4	4	2	4	7	38
31	15	4	11	25	3	10	6	51	3	12	32	3	14	37	4	26	45	4	11	50	4	14	29
Aug. 7	22	4	11	25	0	10	6	1	3	17	1	3	21	19	5	4	35	4	17	14	4	18	36
14	29	4	11	24	52	10	5	8	3	21	30	3	28	2	5	12	18	4	19	19	4	18	55
21	4	5	11	24	39	10	4	14	3	25	58	4	4	46	5	19	52	4	17	6	4	14	52
28	11	5	11	24	22	10	3	19	4	0	26	4	11	31	5	27	15	4	11	16	4	8	42
Sept. 4	18	5	11	24	1	10	2	26	4	4	53	4	18	17	6	4	26	4	6	24	4	6	0
11	25	5	11	23	35	10	1	38	4	9	20	4	25	5	6	11	21	4	7	31	4	10	8
18	1	6	11	23	7	10	0	55	4	13	46	5	1	54	6	17	55	4	15	13	4	19	53
25	8	6	11	22	37	10	0	19	4	18	12	5	8	45	6	24	4	4	26	46	5	2	9
Oct. 2	15	6	11	22	4	9	29	51	4	22	38	5	15	38	6	29	39	5	9	24	5	14	47
9	22	6	11	21	31	9	29	33	4	27	3	5	22	32	7	4	30	5	21	49	5	26	58
16	29	6	11	20	58	9	29	24	5	1	29	5	29	28	7	8	22	6	3	41	6	8	35
23	6	7	11	20	26	9	29	25	5	5	54	6	6	25	7	10	58	6	15	0	6	19	42
30	13	7	11	19	56	9	29	37	5	10	19	6	13	25	7	11	56	6	25	51	7	0	23
Nov 6	20	7	11	19	29	9	29	57	5	14	43	6	20	25	7	11	0	7	6	18	7	10	40
13	27	7	11	19	5	10	0	27	5	19	8	6	27	27	7	8	10	7	16	19	7	20	25
20	4	8	11	18	45	10	1	6	5	23	32	7	4	31	7	4	8	7	25	36	7	29	9
27	11	8	11	18	30	10	1	53	5	27	56	7	11	35	7	0	8	8	3	12	8	5	26
Dec. 4	18	8	11	18	20	10	2	48	6	2	20	7	18	41	6	27	24	8	6	46	8	6	4
11	25	8	11	18	14	10	3	50	6	6	43	7	25	48	6	26	34	8	2	34	7	28	36
18	2	9	11	18	14	10	4	58	6	11	5	8	2	55	6	27	43	7	23	34	7	21	13
25	9	9	11	18	20	10	6	13	6	15	27	8	10	3	7	0	31	7	20	33	7	21	39
Jan. 1	16	9	11	18	30	10	7	31	6	19	48	8	17	10	7	4	37	7	24	33		—	

Stationary **:—Saturn—July 30R. Dec. 15D ; Jupiter—June 22R, Oct. 19D ; Mars— ; Venus—October 31 R. December 11 D ; Mercury—January 10 D. April 12 R, May 6 D, August 15R, Sept. 7D, Dec 5 R, 24 D.**

EPHEMERIS Saka era 1859-60 Saṁvat 1994-95 1938 A.D.

Date.	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ६) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 2	1	9	8	26	12	9	3	18	9	20	26	10	2	47	10	15	20	10	28	5	11	11	7
9	8	9	11	24	26	0	8	6	0	22	7	1	6	30	1	21	12	2	6	9	2	21	14
16	15	9	3	6	17	3	21	9	4	5	41	4	19	47	5	3	25	5	16	34	5	29	17
23	23	9	6	11	38	6	23	43	7	5	36	7	17	23	7	29	9	8	10	58	8	22	54
30	29	9	9	4	58	9	17	13	9	29	40	10	12	18	10	25	8	11	8	9	11	21	21
Feb. 6	6	10	0	4	46	0	18	23	1	2	15	1	16	21	2	0	42	2	15	15	2	29	55
13	14	10	3	14	37	3	29	13	4	13	35	4	27	37	5	11	14	5	24	26	6	7	12
20	21	10	6	19	37	7	1	44	7	13	39	7	25	28	8	7	16	8	19	7	9	1	8
27	27	10	9	13	20	9	25	47	10	8	29	10	21	26	11	4	38	11	18	2	0	1	36
Mar. 6	4	11	0	15	18	0	29	8	1	13	5	1	27	8	2	11	16	2	25	29	3	9	45
13	12	11	3	23	59	4	8	7	4	22	5	5	5	48	5	19	12	6	2	15	6	14	58
20	19	11	6	27	22	7	9	30	7	21	27	8	3	18	8	15	7	8	27	1	9	9	3
27	26	11	9	21	20	10	3	53	10	16	46	10	29	58	11	13	29	11	27	16	0	11	16
Apr. 3	3	12	0	25	25	1	9	38	1	23	53	2	8	7	2	22	17	3	6	22	3	20	22
10	11	12	4	4	13	4	17	55	5	1	25	5	14	42	5	27	44	6	10	31	6	23	2
17	18	12	7	5	19	7	17	24	7	29	20	8	11	11	8	23	1	9	4	55	9	16	58
24	24	12	9	29	14	10	11	49	10	24	44	11	8	3	11	21	45	0	5	48	0	20	9
May 1	1	1	1	4	43	1	19	23	2	4	3	2	18	37	3	3	1	3	17	12	4	1	7
8	9	1	4	14	46	4	28	10	5	11	18	5	24	12	6	6	52	6	19	19	7	1	36
15	16	1	7	13	42	7	25	41	8	7	34	8	19	24	9	1	15	9	13	9	9	25	12
22	23	1	10	7	27	10	19	58	11	2	51	11	16	7	11	29	49	0	13	57	0	28	28
29	30	1	1	13	17	1	28	18	2	13	21	2	28	18	3	13	1	3	27	24	4	11	26
June 5	8	2	4	25	3	5	8	19	5	21	14	6	3	52	6	16	16	6	28	28	7	10	32
12	15	2	7	22	29	8	4	22	8	16	12	8	28	2	9	9	55	9	21	52	10	3	56
19	21	2	10	16	11	10	28	41	11	11	29	11	24	40	0	8	15	0	22	17	1	6	45
26	28	2	1	21	36	2	6	43	2	21	57	3	7	9	3	22	8	4	6	46	4	20	57
July 3	6	3	5	4	41	5	17	57	6	0	48	6	13	19	6	25	34	7	7	27	7	19	33
10	13	3	8	1	24	8	13	14	8	25	4	9	6	57	9	18	55	10	0	58	10	13	9
17	20	3	10	25	29	11	8	2	11	20	50	0	3	56	0	17	24	1	1	16	1	15	33
24	27	3	2	0	13	2	15	12	3	0	23	3	15	35	4	0	38	4	15	23	4	29	41
31	5	4	5	13	31	5	26	51	6	9	45	6	22	15	7	4	28	7	16	28	7	28	21
Aug. 7	12	4	8	10	10	8	22	0	9	3	53	9	15	52	9	27	58	10	10	12	10	22	35
14	18	4	11	5	7	11	17	50	0	0	46	0	13	56	0	27	23	1	11	8	1	25	13
21	26	4	2	9	38	2	24	19	3	9	13	3	24	10	4	9	2	4	23	39	5	7	55
28	3	5	5	21	45	6	5	7	6	18	4	7	0	37	7	12	51	7	24	52	8	6	45
Sept.4	10	5	8	18	35	9	0	27	9	12	24	9	24	30	10	6	45	10	19	12	11	1	51
11	17	5	11	14	41	11	27	43	0	10	56	0	24	20	1	7	55	1	21	43	2	5	44
18	24	5	2	19	57	3	4	20	3	18	50	4	3	22	4	17	50	5	2	7	5	16	7
25	2	6	5	29	47	6	13	4	6	25	59	7	8	32	7	20	48	8	2	51	8	14	46
Oct. 2	9	6	8	26	37	9	8	31	9	20	30	10	2	40	10	15	3	10	27	41	11	10	35
9	15	6	11	23	45	0	7	10	0	20	47	1	4	35	1	18	32	2	2	35	2	16	43
16	23	6	3	0	54	3	15	5	3	29	16	4	13	22	4	27	21	5	11	10	5	24	46
23	30	6	6	8	6	6	21	9	7	3	54	7	16	23	7	28	33	8	10	41	8	22	36
30	7	7	9	4	28	9	16	21	9	28	20	10	10	30	10	22	54	11	5	37	11	18	40
Nov. 6	14	7	0	2	4	0	15	49	0	29	51	1	14	8	1	28	33	2	13	3	2	27	31
13	21	7	3	11	53	3	26	6	4	10	7	4	23	56	5	7	32	5	20	54	6	4	3
20	29	7	6	16	59	6	29	42	7	12	13	7	24	32	8	6	41	8	13	41	9	0	35
27	5	8	9	12	27	9	24	18	10	6	15	10	18	21	11	0	42	11	13	21	11	26	23
Dec. 4	12	8	0	9	50	0	23	43	1	8	1	1	22	40	2	7	33	2	22	31	3	7	26
11	19	8	3	22	11	4	6	38	4	20	44	5	4	29	5	17	53	6	0	59	6	13	48
18	27	8	6	26	23	7	8	47	7	21	2	8	3	10	8	15	11	8	27	7	9	8	59
25	4	9	9	20	50	10	2	42	10	14	37	10	26	41	11	8	56	11	21	29	0	4	23
Jan. 1	10	9	0	17	41		—			—			—			—			—			—	

Rahu (रा ☊ ग्रा) on 1st of each month	Jan. :	7	11	11	7	9	32	7	8	4	7	6	25
	May :	7	4	50	7	3	11	7	1	36	6	29	57
	Sept. :	6	28	19	6	26	44	6	25	5	6	23	30

1939 A.D. 1345-46 B.S. *Ayanamsa* 23° 0′ 36″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			শ ♄ শ			বৃ ♃ বৃ			ম ♂ ম			র ☉ র			শু ♀ শু			বু ☿ বু			☿ Wednes		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	16	9	11	18	30	10	7	31	6	19	48	8	17	10	7	4	37	7	24	33	7	27	30
8	23	9	11	18	46	10	8	55	6	24	8	8	24	18	7	9	43	8	2	7	8	5	54
15	1	10	11	19	7	10	10	23	6	28	27	9	1	26	7	15	34	8	11	16	8	15	29
22	8	10	11	19	33	10	11	54	7	2	46	9	8	34	7	22	0	8	21	17	8	25	46
29	15	10	11	20	3	10	13	29	7	7	3	9	15	41	7	28	52	9	1	53	9	6	38
Feb. 5	22	10	11	20	37	10	15	6	7	11	18	9	22	47	8	6	3	9	13	3	9	18	1
12	29	10	11	21	15	10	16	44	7	15	31	9	29	52	8	13	30	9	24	49	10	0	5
19	7	11	11	21	56	10	18	24	7	19	43	10	6	56	8	21	10	10	7	17	10	12	51
26	14	11	11	22	40	10	20	5	7	23	52	10	13	59	8	28	59	10	20	23	10	26	6
Mar. 5	21	11	11	23	27	10	21	47	7	27	57	10	21	0	9	6	55	11	1	36	11	8	56
12	28	11	11	24	15	10	23	28	8	2	0	10	28	0	9	13	58	11	15	18	11	19	13
19	5	12	11	25	6	10	25	10	8	5	58	11	4	59	9	23	5	11	22	53	11	24	18
26	12	12	11	25	57	10	26	50	8	9	52	11	11	55	10	1	17	11	24	20	11	23	7
Apr. 2	19	12	11	26	50	10	28	29	8	13	40	11	18	50	10	9	31	11	20	20	11	17	54
9	26	12	11	27	43	11	0	7	8	17	22	11	25	44	10	17	48	11	15	0	11	13	29
16	2	1	11	28	36	11	1	42	8	20	56	0	2	35	10	26	8	11	12	37	11	12	53
23	9	1	11	29	29	11	3	15	8	24	22	0	9	26	11	4	29	10	14	21	11	16	11
30	16	1	0	0	21	11	4	44	8	27	36	0	16	14	11	12	51	11	19	29	11	22	30
May 7	23	1	0	1	12	11	6	11	9	0	38	0	23	1	11	21	15	11	27	10	0	1	6
14	30	1	0	2	2	11	7	33	9	3	24	0	29	47	11	29	39	0	6	53	0	11	36
21	7	2	0	2	50	11	8	51	9	5	58	1	6	31	0	8	5	0	13	23	0	23	51
28	14	2	0	3	36	11	10	4	9	7	59	1	13	15	0	16	32	1	1	38	1	7	48
June 4	21	2	0	4	20	11	11	11	9	9	41	1	19	57	0	24	59	1	16	23	1	22	58
11	28	2	0	5	1	11	12	13	9	10	54	1	26	39	1	3	27	2	1	44	2	8	9
18	3	3	0	5	29	11	13	8	9	11	35	2	3	20	1	11	56	2	16	17	2	22	3
25	10	3	0	6	14	11	13	55	9	11	39	2	10	1	1	20	26	2	29	13	3	4	12
July 2	17	3	0	6	44	11	14	35	9	11	6	2	16	41	1	28	57	3	10	18	3	14	28
9	24	3	0	7	11	11	15	6	9	9	59	2	23	22	2	7	29	3	19	27	3	22	43
16	31	3	0	7	33	11	15	29	9	8	24	3	0	2	2	16	2	3	26	21	3	28	30
23	7	4	0	7	51	11	15	43	9	6	31	3	6	43	2	24	36	4	0	27	4	1	8
30	14	4	0	8	4	11	15	47	9	4	36	3	13	24	3	3	12	4	0	54	3	29	48
Aug 6	21	4	0	8	12	11	15	41	9	2	55	3	20	6	3	11	48	3	27	22	3	25	3
13	28	4	0	8	15	11	15	25	9	1	39	2	26	49	3	20	26	3	21	57	3	20	10
20	3	5	0	8	13	11	15	1	9	0	59	4	3	33	3	29	5	3	19	8	3	19	38
27	10	5	0	8	6	11	14	28	9	0	59	4	10	18	4	7	45	3	22	5	3	25	12
Sept. 3	17	5	0	7	53	11	13	46	9	1	39	4	17	4	4	16	26	4	0	47	4	5	45
10	24	5	0	7	37	11	12	59	9	2	56	4	23	51	4	25	7	4	13	0	4	18	40
17	31	5	0	7	15	11	12	7	9	4	48	5	0	41	5	3	50	4	26	14	5	1	50
24	7	6	0	6	50	11	11	11	9	7	9	5	7	31	5	12	33	5	9	7	5	14	25
Oct. 1	14	6	0	6	22	11	10	15	9	9	56	5	14	23	5	21	16	5	21	16	5	26	15
8	21	6	0	5	51	11	9	20	9	13	5	5	21	17	6	0	0	6	2	43	6	7	26
15	28	6	0	5	19	11	8	28	9	16	32	5	28	13	6	8	44	6	13	33	6	18	0
22	5	7	0	4	45	11	7	41	9	20	14	6	5	10	6	17	28	6	23	48	6	28	0
29	12	7	0	4	12	11	7	2	9	24	10	6	12	9	6	26	12	7	3	24	7	7	15
Nov. 5	19	7	0	3	39	11	6	30	9	28	16	6	19	9	7	4	56	7	12	0	7	15	11
12	26	7	0	3	9	11	6	7	10	2	31	6	26	11	7	13	40	7	18	37	7	20	19
19	3	8	0	2	41	11	5	54	10	6	53	7	3	14	7	22	24	7	20	51	7	19	35
26	10	8	0	2	17	11	5	51	10	11	21	7	10	19	8	1	8	7	15	32	7	11	28
Dec. 3	17	8	0	1	56	11	5	59	10	15	54	7	17	24	8	9	51	7	6	48	7	4	59
10	24	8	0	1	41	11	6	16	10	20	31	7	24	31	8	18	35	7	5	7	7	6	46
17	1	9	0	1	30	11	6	44	10	25	11	8	1	38	8	27	17	7	10	20	7	13	42
24	8	9	0	1	25	11	7	20	10	29	53	8	8	46	9	5	59	7	18	45	7	22	48
31	15	9	0	1	25	11	8	5	11	4	37	8	15	54	9	14	40	7	28	27	8	2	2
Jan. 7	22	9	0	1	30	11	8	58	11	9	22	8	23	2	9	23	20	8	8	45		—	

Stationary :—Saturn—August 14 R, December 28 D; Jupiter—July 30 R, Nov. 25 D; Mars—June 23 R, Aug. 24 D; Venus—; Mercury—Mar. 25R, April 17 D, July 28 R, August 21 D, November 19 R, December 8 D.

EPHEMERIS Saka era 1860-61, Samvat 1995-96 1939 A.D.

Date	Tithi & Month		Niryana Long. of Moon (च ☽ ठ) at 5-30 P.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	10	9	0 17 41	1 1 29	1 15 47	2 0 31	2 15 37	3 0 54	3 16 19
8	18	9	4 1 19	4 16 6	5 0 27	5 14 21	5 27 47	6 10 48	6 23 28
15	25	9	7 5 53	7 18 5	8 0 8	8 12 6	8 24 0	9 5 52	9 17 44
22	2	10	9 29 37	10 11 32	10 23 31	11 5 37	11 17 53	0 0 22	0 13 10
29	9	10	0 26 20	1 9 57	1 24 2	2 8 36	2 23 35	3 8 50	3 24 13
Feb. 5	16	10	4 9 29	4 24 30	5 9 5	5 23 11	6 6 47	6 19 54	7 2 37
12	24	10	7 15 0	7 27 9	8 9 8	8 21 1	9 2 51	9 14 42	9 26 36
19	30	10	10 8 33	10 20 35	11 2 43	11 14 58	11 27 23	0 9 59	0 22 50
26	7	11	1 5 59	1 19 30	2 3 23	2 17 40	3 2 20	3 17 17	4 2 24
Mar. 5	15	11	4 17 30	5 2 25	5 17 2	6 1 13	6 14 56	6 28 11	7 11 1
12	22	11	7 23 29	8 5 41	8 17 41	8 29 34	9 11 25	9 23 17	10 5 13
19	29	11	10 17 16	10 29 27	11 11 48	11 24 18	0 7 0	0 19 53	1 2 59
26	5	12	1 16 19	1 29 54	2 13 46	2 27 53	3 12 15	3 26 49	4 11 29
Apr. 2	13	12	4 26 10	5 10 43	5 25 4	6 9 5	6 22 45	7 6 1	7 18 54
9	20	12	8 1 27	8 13 43	8 25 46	9 7 42	9 19 34	10 1 28	10 13 27
16	28	12	10 25 35	11 7 54	11 20 27	0 3 14	0 16 16	0 29 33	1 13 3
23	4	1	1 26 45	2 10 37	2 24 40	3 8 49	3 23 3	4 7 18	4 21 35
30	12	1	5 5 47	5 19 52	6 3 46	6 17 26	7 0 50	7 13 57	7 26 46
May 7	19	1	8 9 17	8 21 34	9 3 39	9 15 36	9 27 29	10 9 24	10 21 24
14	25	1	11 3 33	11 15 57	11 28 38	0 11 39	0 24 59	1 8 39	1 22 35
21	2	2	2 6 46	2 21 4	3 5 27	3 19 49	4 4 7	4 18 17	5 2 18
28	10	2	5 16 8	5 29 47	6 13 15	6 26 30	7 9 33	7 22 23	8 4 59
June 4	17	2	8 17 23	8 29 36	9 11 39	9 23 35	10 5 28	10 17 21	10 29 20
11	24	2	11 11 29	11 23 53	0 6 36	0 19 42	1 3 14	1 17 10	2 1 28
18	1	3	2 16 4	3 0 50	3 15 38	4 0 21	4 14 51	4 29 6	5 13 3
25	9	3	5 26 42	6 10 4	6 23 12	7 6 6	7 18 49	8 1 21	8 13 43
July 2	16	3	8 25 57	9 8 2	9 20 1	10 1 54	10 13 45	10 25 37	11 7 34
9	22	3	11 19 41	0 2 2	0 14 43	0 27 49	1 11 22	1 25 23	2 9 52
16	30	3	2 24 44	3 9 49	3 24 59	4 10 1	4 24 49	5 9 16	5 23 18
23	7	4	6 6 57	6 20 13	7 3 10	7 15 52	7 28 20	8 10 38	8 22 48
30	14	4	9 4 52	9 16 50	9 28 44	10 10 36	10 22 26	11 4 19	11 16 17
Aug. 6	21	4	11 28 23	0 10 46	0 23 21	1 6 23	1 19 51	2 3 48	2 18 15
13	28	4	3 3 6	3 18 17	4 3 36	4 18 51	5 3 52	5 18 31	6 2 44
20	6	4	6 16 29	6 29 49	7 12 45	7 25 22	8 7 43	8 19 53	9 1 55
27	13	4	9 13 52	9 25 45	10 7 37	10 19 29	11 1 23	11 13 21	11 25 25
Sept. 3	19	4	0 7 36	0 20 0	1 2 40	1 15 40	1 29 3	2 12 52	2 27 8
10	27	4	3 11 48	3 26 47	4 11 57	4 27 9	5 12 12	5 26 57	6 11 17
17	4	5	6 25 11	7 8 37	7 21 39	8 4 18	8 16 39	8 28 47	9 10 46
24	11	5	9 22 39	10 4 31	10 16 23	10 28 18	11 10 19	11 22 25	0 4 41
Oct. 1	18	5	0 17 6	0 29 43	1 12 34	1 25 40	2 9 5	2 22 49	3 6 53
8	25	5	3 21 16	4 5 54	4 20 43	5 5 35	5 20 23	6 5 0	6 19 18
15	3	6	7 3 14	7 16 45	7 29 51	8 12 35	8 25 0	9 7 9	9 19 8
22	10	6	10 1 1	10 12 52	10 24 46	11 6 45	11 18 53	0 1 12	0 13 43
29	16	6	0 26 27	1 9 25	1 22 37	2 6 2	2 19 40	3 3 29	3 17 30
Nov. 5	24	6	4 1 40	4 15 58	5 0 21	5 14 45	5 29 7	6 13 21	6 27 23
12	1	7	7 11 9	7 24 35	8 7 41	8 20 27	9 2 54	9 15 5	9 27 5
19	8	7	10 8 58	10 20 48	11 2 42	11 14 43	11 26 56	0 9 24	0 22 10
26	15	7	1 5 15	1 18 37	2 2 16	2 16 9	3 0 11	3 14 19	3 28 29
Dec. 3	22	7	4 12 40	4 26 48	5 10 52	5 24 51	6 8 45	6 22 31	7 6 7
10	30	7	7 19 32	8 2 43	8 15 39	8 28 19	9 10 44	9 22 54	10 4 53
17	6	8	10 16 45	10 28 34	11 10 26	11 22 26	0 4 39	0 17 10	1 0 3
24	13	8	1 13 20	1 27 2	2 11 5	2 25 26	3 9 58	3 24 34	4 9 7
31	20	8	4 23 31	5 7 43	5 21 43	6 5 29	6 19 3	7 2 26	7 15 38
Jan. 7	28	8	7 28 40	—	—	—	—	—	—

Rahu (रा ☊ श) on 1st of each month					
	Jan. :	6 21 50	6 20 12	6 18 43	6 17
	May. :	6 15 29	6 13 51	6 12 15	6 10 37
	Sept. :	6 8 58	6 7 23	6 5 44	6 4 9

C.E.—11

1940 A.D. 1346-47 B S. *Ayanamsa* 23° 1' 21" CONDENSED

Date.	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			वृ ♃ वृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ Wednes		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 7	22	9	0	1	30	11	8	58	11	9	22	8	23	2	9	23	20	8	8	45	8	13	17
14	29	9	0	1	41	11	9	58	11	14	8	9	0	10	10	1	58	8	19	27	8	24	10
21	7	10	0	1	57	11	11	5	11	18	54	9	7	17	10	10	34	9	0	34	9	5	28
28	14	10	0	2	18	11	12	18	11	23	40	9	14	24	10	19	8	9	12	8	9	17	16
Feb. 4	21	10	0	2	44	11	13	36	11	28	26	9	21	31	10	27	39	9	24	15	9	29	36
11	28	10	0	3	14	11	14	59	0	3	12	9	28	36	11	6	6	10	6	51	10	12	18
18	5	11	0	3	49	11	16	26	0	7	57	10	5	41	11	14	29	10	19	25	10	24	28
25	12	11	0	4	27	11	17	57	0	12	41	10	12	44	11	22	47	11	0	22	11	3	50
Mar. 3	19	11	0	5	8	11	19	31	0	17	25	10	19	45	0	0	59	11	6	40	11	7	14
10	26	11	0	5	52	11	21	6	0	22	6	10	26	45	0	9	4	11	5	54	11	3	42
17	4	12	0	6	38	11	22	44	0	26	48	11	3	43	0	17	1	11	0	0	10	27	22
24	11	12	0	7	27	11	24	23	1	1	28	11	10	40	0	24	50	10	24	50	10	23	56
31	18	12	0	8	18	11	26	4	1	6	8	11	17	35	1	2	27	10	24	4	10	25	5
Apr. 7	25	12	0	9	10	11	27	45	1	10	46	11	24	29	1	9	51	10	27	29	10	29	55
14	1	1	0	10	3	11	29	26	1	15	23	0	1	21	1	16	58	11	3	53	11	7	19
21	8	1	0	10	56	0	1	8	1	19	59	0	8	12	1	23	46	11	12	26	11	16	38
28	15	1	0	11	50	0	2	48	1	24	33	0	15	0	2	0	8	11	22	41	11	27	33
May 5	22	1	0	12	43	0	4	28	1	29	7	0	21	48	2	5	58	0	4	28	0	9	59
12	29	1	0	13	36	0	6	6	2	3	40	0	28	34	2	11	8	0	17	46	0	23	55
19	5	2	0	14	28	0	7	42	2	8	12	1	5	19	2	15	24	1	2	26	1	9	0
26	12	2	0	15	19	0	9	16	2	12	42	1	12	2	2	18	29	1	17	45	1	24	9
June 2	19	2	0	16	8	0	10	47	2	17	12	1	18	45	2	20	7	2	2	18	2	8	2
9	26	2	0	16	55	0	12	15	2	21	42	1	25	27	2	19	56	2	15	5	2	19	55
16	2	3	0	17	39	0	13	39	2	26	11	2	2	8	2	17	51	2	25	44	2	29	36
23	9	3	0	18	21	0	15	0	3	0	39	2	8	49	2	14	8	3	4	5	3	6	53
30	16	3	0	19	0	0	16	16	3	5	6	2	15	29	2	9	48	3	9	47	3	11	16
July 7	23	3	0	19	36	0	17	26	3	9	34	2	22	10	2	6	8	3	12	14	3	12	8
14	30	3	0	20	8	0	18	31	3	14	1	2	28	50	2	4	4	3	10	56	3	9	20
21	5	4	0	20	35	0	19	30	3	18	27	3	5	31	2	3	55	3	6	40	3	4	38
28	12	4	0	20	59	0	20	22	3	22	54	3	12	12	2	5	33	3	2	30	3	1	41
Aug. 4	19	4	0	21	18	0	21	6	3	27	21	3	18	54	2	8	38	3	2	0	3	3	23
11	26	4	0	21	32	0	21	42	4	1	47	3	25	37	2	12	51	3	6	45	3	10	21
18	2	5	0	21	41	0	22	10	4	6	14	4	2	20	2	17	57	3	16	22	3	21	36
25	9	5	0	21	45	0	22	29	4	10	41	4	9	5	2	23	43	3	29	11	4	5	4
Sept. 1	16	5	0	21	43	0	22	38	4	15	9	4	15	51	3	0	2	4	12	57	4	18	46
8	23	5	0	21	37	0	22	37	4	19	36	4	22	38	3	6	46	4	26	17	5	1	44
15	30	5	0	21	25	0	22	27	4	24	5	4	29	27	3	13	50	5	8	44	5	13	48
22	6	6	0	21	9	0	22	7	4	28	34	5	6	17	3	21	11	5	20	19	5	25	3
29	13	6	0	20	48	0	21	37	5	3	3	5	13	9	3	28	46	6	1	8	6	5	32
Oct. 6	20	6	0	20	23	0	20	59	5	7	33	5	20	3	4	6	33	6	11	10	6	15	14
13	27	6	0	19	55	0	20	14	5	12	4	5	26	58	4	14	29	6	20	21	6	23	56
20	3	7	0	19	24	0	19	23	5	16	36	6	3	55	4	22	34	6	28	15	7	1	1
27	10	7	0	18	51	0	18	28	5	21	9	6	10	53	5	0	47	7	3	48	7	4	55
Nov. 3	17	7	0	18	18	0	17	32	5	25	42	6	17	54	5	9	5	7	4	39	7	2	49
10	24	7	0	17	44	0	16	35	5	0	16	6	24	55	5	17	29	6	28	22	6	24	24
17	1	8	0	17	11	0	15	40	6	4	52	7	1	58	5	25	58	6	20	18	6	19	3
24	8	8	0	16	40	0	14	51	6	9	28	7	9	2	6	4	30	6	19	57	6	22	7
Dec. 1	15	8	0	16	12	0	14	7	6	14	5	7	16	8	6	13	5	6	26	18	7	0	3
8	22	8	0	15	47	0	13	31	6	18	43	7	23	14	6	21	43	7	5	31	7	9	49
15	29	8	0	15	26	0	13	4	6	23	22	8	0	21	7	0	23	7	15	43	7	20	14
22	7	9	0	15	9	0	12	46	6	28	3	8	7	29	7	9	4	7	26	19	8	0	56
29	14	9	0	14	58	0	12	39	7	2	44	8	14	37	7	17	47	8	7	8	8	11	49
Jan. 5	21	9	0	14	53	0	12	43	7	7	27	8	21	46	7	26	31	8	18	13	—		

Stationary :—Saturn—August 28 R, Jupiter—September 5R, Dec. 30D; Mars—; Venus—June 5 R, July 19 D; Mercury—March 6 R, March 29 D. July 9 R, August 2 D, November 1 R, November 21 D.

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Nirayana Long. of Moon (च) ६ ।) at 5-30 P.M. I.S.T

Date	*Tithi & Month*	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan. 7	23 8	7 28 40	8 11 31	8 24 10	9 6 37	9 18 53	10 0 58	10 12 55
14	5 9	10 24 44	11 6 32	11 18 21	0 0 18	0 12 28	0 24 56	1 7 47
21	11 9	1 21 6	2 4 53	2 19 8	3 3 47	3 18 42	4 3 44	4 18 43
28	19 9	5 3 30	5 18 0	6 2 10	6 15 59	6 29 29	7 12 40	7 25 36
Feb. 4	26 9	8 8 20	8 20 51	9 3 13	9 15 26	9 27 31	10 9 29	10 21 21
11	3 10	11 3 9	11 14 56	11 26 45	0 8 41	0 20 49	1 3 13	1 15 59
18	10 10	1 29 11	2 12 53	2 27 4	3 11 43	3 26 44	4 11 57	4 27 12
25	17 10	5 12 20	5 27 10	6 11 37	6 25 40	7 9 17	7 22 30	8 5 22
Mar. 3	25 10	8 17 58	9 0 19	9 12 29	9 24 30	10 6 26	10 18 17	11 0 6
10	1 11	11 11 53	11 23 42	0 5 36	0 17 37	0 29 49	1 12 15	1 24 59
17	8 11	2 8 6	2 21 39	3 5 38	3 20 4	4 4 53	4 19 58	5 5 12
24	16 11	5 20 23	6 5 23	6 20 4	7 4 20	7 18 9	8 1 31	8 14 29
31	23 11	8 27 5	9 9 24	9 21 29	10 3 25	10 15 15	10 27 3	11 8 51
Apr. 7	30 11	11 20 42	0 2 38	0 14 42	0 26 54	1 9 17	1 21 54	2 4 46
14	7 12	2 17 55	3 1 24	3 15 14	3 29 24	4 13 54	4 28 40	5 13 35
21	14 12	5 28 33	6 13 26	6 28 5	7 12 25	7 26 21	8 9 50	8 22 55
28	21 12	9 5 35	9 17 56	10 0 2	10 11 57	10 23 46	11 5 34	11 17 24
May 5	28 12	11 29 20	0 11 25	0 23 41	1 6 9	1 18 50	2 1 46	2 14 54
12	5 1	2 28 17	3 11 53	3 25 42	4 9 44	4 23 58	5 8 22	5 22 53
19	13 1	6 7 27	6 21 59	7 6 22	7 20 32	3 4 22	8 17 51	9 0 56
26	20 1	9 13 39	9 20 2	10 8 9	10 20 4	11 1 54	11 13 43	11 25 35
June 2	27 1	0 7 37	0 19 50	1 2 19	1 15 4	1 28 6	2 11 25	2 24 57
9	4 2	3 8 41	3 22 34	4 6 34	4 20 39	5 4 46	5 18 56	6 3 7
16	11 2	6 17 16	7 1 23	7 15 22	7 29 10	8 12 44	8 26 1	9 9 58
23	19 2	9 21 37	10 3 58	10 16 4	10 27 59	11 9 49	11 21 38	0 3 32
30	25 2	0 15 36	0 27 55	1 10 33	1 23 32	2 6 52	2 20 33	3 4 30
July 7	2 3	3 18 40	4 2 57	4 17 16	5 1 34	5 15 46	5 29 53	6 13 53
14	10 3	6 27 45	7 11 29	7 25 4	8 8 28	8 21 40	9 4 38	9 17 21
21	17 3	9 29 49	10 12 3	10 24 5	11 5 58	11 17 46	11 29 35	0 11 29
28	24 3	0 23 33	1 5 53	1 18 34	2 1 39	2 15 9	2 29 4	3 13 21
Aug. 4	1 4	3 27 54	4 12 35	4 27 18	5 11 56	5 26 24	6 10 39	6 24 39
11	8 4	7 8 24	7 21 54	8 5 11	8 18 15	9 1 5	9 13 43	9 26 10
18	16 4	10 8 24	10 20 29	11 2 24	11 14 14	11 26 1	0 7 49	0 19 42
25	22 4	1 1 46	1 14 5	1 26 44	2 9 47	2 23 17	3 7 15	3 21 38
Sept. 1	29 4	4 6 23	4 21 21	5 6 24	5 21 23	6 6 11	6 20 42	7 4 52
8	7 5	7 18 41	8 2 8	8 15 16	8 28 6	9 10 41	9 23 3	10 5 15
15	14 5	10 17 17	10 29 12	11 11 3	11 22 50	0 4 38	0 16 27	0 28 23
22	21 5	1 10 28	1 22 47	2 5 23	2 18 22	3 1 45	3 15 35	3 29 52
29	28 5	4 14 33	4 29 32	5 14 43	5 29 55	6 14 58	6 29 46	7 14 11
Oct. 6	5 6	7 28 11	8 11 44	8 24 52	9 7 38	9 20 5	10 2 18	10 14 19
13	12 6	10 26 13	11 8 2	11 19 50	0 1 38	0 13 29	0 25 25	1 7 29
20	19 6	1 19 41	2 2 6	2 14 45	2 27 41	3 10 58	3 24 37	4 8 39
27	26 6	4 23 4	5 7 50	5 22 50	6 7 58	6 23 4	7 7 59	7 22 35
Nov. 3	4 7	8 6 45	8 20 27	9 3 42	9 16 31	9 28 57	10 11 7	10 23 4
10	11 7	11 4 54	11 16 40	11 28 28	0 10 20	0 22 18	1 4 25	1 16 42
17	17 7	1 29 9	2 11 48	2 24 39	3 7 43	3 21 1	4 4 35	4 18 25
24	25 7	5 2 33	5 16 57	6 1 35	6 16 23	7 1 14	7 15 59	8 0 31
Dec. 1	2 8	8 14 42	8 28 28	9 11 48	9 24 41	10 7 11	10 19 22	11 1 19
8	9 8	11 13 9	11 24 55	0 6 45	0 18 40	1 0 46	1 13 5	1 25 38
15	16 8	2 8 24	2 21 24	3 4 36	3 17 59	4 1 31	4 15 13	4 29 8
22	23 8	5 13 2	5 27 10	6 11 26	6 25 48	7 10 12	7 24 33	8 8 45
29	1 9	8 22 42	9 6 20	9 19 35	10 2 26	10 14 57	10 27 10	11 9 9
Jan 5	8 9	11 21 0	—	—	—	—	—	—

Rahu (रा ह श्रा) on 1st of each month	Jan. :	6 2 31	6 0 52	5 29 20	5 27 46
	May :	5 26 5	5 24 27	5 22 51	5 21 13
	Sept. :	5 19 34	5 17 59	5 16 21	5 14 45

1941 A.D. 1347-48 B.S. *Ayanamsa* 23° 2′ 6″ CONDENSED

Date	Beng. Date		*Nirayana* Longitudes at 5-30 P.M. I.S.T. on Sundays																				
			श ♄ श			बृ. ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ Wednes		
			S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′
Jan. 5	21	9	0	14	53	0	12	43	7	7	27	8	21	46	7	26	31	8	18	13	8	23	2
12	28	9	0	14	52	0	12	55	7	12	9	8	28	53	8	5	14	8	29	34	9	4	33
19	6	10	0	14	57	0	13	18	7	16	53	9	6	0	8	13	59	9	11	19	9	16	28
26	13	10	0	15	8	0	13	50	7	21	38	9	13	8	8	22	43	9	23	23	9	28	34
Feb. 2	20	10	0	15	24	0	14	31	7	26	24	9	20	14	9	1	28	10	5	17	10	10	0
9	27	10	0	15	45	0	15	20	8	1	10	9	27	20	9	10	13	10	15	23	10	18	22
16	4	11	0	16	10	0	16	16	8	5	58	10	4	24	9	18	57	10	20	20	10	20	3
23	11	11	0	16	41	0	17	19	8	10	46	10	11	28	9	27	42	10	17	30	10	14	31
Mar. 2	18	11	0	17	15	0	18	29	8	15	34	10	18	30	10	6	26	10	10	22	10	7	54
9	25	11	0	17	53	0	19	43	8	20	24	10	25	30	10	15	9	10	6	5	10	5	53
16	2	12	0	18	34	0	21	3	8	25	14	11	2	29	10	23	52	10	6	58	10	8	38
23	9	12	0	19	19	0	22	27	9	0	4	11	9	26	11	2	35	10	11	46	10	14	40
30	16	12	0	20	6	0	23	54	9	4	54	11	16	22	11	11	17	10	19	8	10	22	52
Apr. 6	23	12	0	20	55	0	25	24	9	9	45	11	23	16	11	19	58	10	28	17	11	2	40
13	30	12	0	21	46	0	26	57	9	14	35	0	0	8	11	28	38	11	8	53	11	13	49
20	7	1	0	22	38	0	28	32	9	19	25	0	6	58	0	7	18	11	20	47	11	26	18
27	14	1	0	23	31	1	0	9	9	24	14	0	13	48	0	15	57	0	4	2	0	10	7
May 4	21	1	0	24	25	1	1	47	9	29	1	0	20	35	0	24	35	0	18	33	0	25	2
11	28	1	0	25	19	1	3	26	10	3	47	0	27	21	1	3	12	1	3	42	1	10	4
18	4	2	0	26	13	1	5	5	10	8	31	1	4	6	1	11	49	1	18	9	1	23	46
25	11	2	0	27	6	1	6	44	10	13	12	1	10	50	1	20	25	2	0	37	2	5	13
June 1	18	2	0	27	59	1	8	23	10	17	49	1	17	33	1	29	1	2	10	37	2	14	4
8	25	2	0	28	50	1	10	0	10	22	22	1	24	15	2	7	36	2	17	50	2	20	0
15	1	3	0	29	40	1	11	37	10	26	50	2	0	56	2	16	10	2	21	54	2	22	34
22	8	3	1	0	28	1	12	12	11	1	10	2	7	37	2	24	44	2	22	23	2	21	30
29	15	3	1	1	13	1	14	45	11	5	23	2	14	18	3	3	17	2	19	33	2	17	45
July 6	22	3	1	1	55	1	16	15	11	9	24	2	20	57	3	11	49	2	15	25	2	14	5
13	29	3	1	2	35	1	17	42	11	13	15	2	27	38	3	20	20	2	13	15	2	13	30
20	4	4	1	3	12	1	19	7	11	16	52	3	4	18	3	28	51	2	15	8	2	17	20
27	11	4	1	3	45	1	20	27	11	20	11	3	11	0	4	7	21	2	21	31	2	25	33
Aug. 3	18	4	1	4	14	1	21	44	11	23	10	3	17	41	4	15	50	3	1	59	3	7	26
10	25	4	1	4	39	1	22	55	11	25	45	3	24	24	4	24	18	3	15	17	3	21	23
17	32	4	1	4	59	1	24	1	11	27	52	4	1	7	5	2	44	3	29	33	4	5	33
24	7	5	1	5	14	1	25	1	11	29	27	4	7	52	5	11	8	4	13	18	4	18	53
31	14	5	1	5	24	1	25	55	0	0	24	4	14	38	5	19	31	4	26	3	5	1	12
Sept. 7	21	5	1	5	29	1	26	41	0	0	40	4	21	24	5	27	52	5	7	46	5	13	30
14	28	5	1	5	29	1	27	19	0	0	14	4	28	13	6	6	10	5	18	32	5	22	52
21	4	6	1	5	24	1	27	49	11	29	7	5	5	3	6	14	26	5	28	22	6	2	15
28	11	6	1	5	13	1	28	10	11	27	25	5	11	55	6	22	39	6	7	5	6	10	23
Oct. 5	18	6	1	4	57	1	28	21	11	25	21	5	18	48	7	0	49	6	14	13	6	16	32
12	25	6	1	4	37	1	28	23	11	23	9	5	25	43	7	8	54	6	18	36	6	19	7
19	2	7	1	4	13	1	28	15	11	21	7	6	2	39	7	16	55	6	18	1	6	15	47
26	9	7	1	3	45	1	27	53	11	19	29	6	9	38	7	24	51	6	11	2	6	7	21
Nov. 2	16	7	1	3	14	1	27	30	11	18	26	6	16	38	8	2	39	6	3	57	6	3	10
9	23	7	1	2	41	1	26	54	11	18	2	6	23	39	8	10	17	6	4	58	6	7	37
16	30	7	1	2	7	1	26	11	11	18	16	7	0	42	8	17	44	6	12	22	6	16	29
23	7	8	1	1	33	1	25	21	11	19	8	7	7	46	8	24	57	6	22	21	6	26	54
30	14	8	1	0	59	1	24	26	11	20	32	7	14	51	9	1	51	7	3	4	7	7	44
Dec. 7	21	8	1	0	28	1	23	30	11	22	25	7	21	57	9	8	20	7	13	57	7	18	38
14	28	8	0	29	59	1	22	33	11	24	42	7	29	4	9	14	16	7	24	54	7	29	36
21	6	9	0	29	33	1	21	37	11	27	19	8	6	12	9	19	29	8	5	55	8	10	42
28	13	9	0	29	12	1	20	46	0	0	15	8	13	20	9	23	44	8	17	6	8	21	57
Jan. 4	20	9	0	28	55	1	20	1	0	3	24	8	20	28	9	26	44	8	28	29	9	3	26

Stationary :—Saturn—January 9D, Sept. 12 R ; Jupiter—October 10R ; Mars—September 7R, November 10 D ; Venus— ; Mercury—Feb. 17 R, March 12 D, June 20 R, July 14 D, October 15 R, November 5 D.

EPHEMERIS Saka era 1862-63 Samvat 1997-98 1941 A.D.

Date	*Tithi* & *Month*		*Nirayana* Long. of Moon (च ☽ ५) at 5-30 P.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 5	8	9	11	21	0	0	2	48	0	14	38	0	26	36	1	8	47	1	21	14	2	3	58
12	14	9	2	17	2	3	0	23	3	14	0	3	27	49	4	11	46	4	25	49	5	7	54
19	21	9	5	24	0	6	8	6	6	22	11	7	6	13	7	20	12	8	4	5	8	17	49
26	29	9	9	1	21	9	14	38	9	27	38	10	10	21	10	22	46	11	4	57	11	16	55
Feb. 2	6	10	11	28	46	0	10	34	0	22	24	1	4	22	1	16	33	1	29	1	2	11	50
9	12	10	2	25	2	3	8	37	3	22	33	4	6	45	4	21	10	5	5	41	5	20	12
16	20	10	6	4	38	6	18	58	7	3	6	7	17	3	8	0	48	8	14	20	8	27	39
23	27	10	9	10	45	9	23	38	10	6	17	10	18	44	11	0	58	11	13	2	11	24	57
Mar 2	4	11	0	6	47	0	18	34	1	0	25	1	12	22	1	24	31	2	6	56	2	19	42
9	11	11	3	2	52	3	16	28	4	0	30	4	14	54	4	29	37	5	14	31	5	29	29
16	18	11	6	14	22	6	29	3	7	13	27	7	27	32	8	11	16	8	24	40	9	7	14
23	26	11	9	20	32	10	3	5	10	15	26	10	27	36	11	9	38	11	21	34	0	3	25
30	2	12	0	15	13	0	27	2	1	8	54	1	20	52	2	3	1	2	15	23	2	28	4
Apr. 6	9	12	3	11	8	3	24	36	4	8	32	4	22	53	5	7	39	5	22	42	6	7	54
13	17	12	6	23	6	7	8	8	7	22	51	8	7	11	8	21	3	9	4	29	9	17	31
20	24	12	10	0	10	10	12	33	10	24	42	11	6	41	11	18	34	0	0	23	0	12	12
27	1	1	0	24	1	1	5	53	1	17	50	1	29	54	2	12	7	2	24	32	3	7	12
May 4	7	1	3	20	11	4	3	31	4	17	16	5	1	26	5	16	1	6	0	57	6	16	7
11	15	1	7	1	22	7	16	32	8	1	26	8	15	57	9	0	0	9	13	32	9	26	37
18	23	1	10	9	17	10	21	37	11	3	42	11	15	36	11	27	25	0	9	13	0	21	1
25	29	1	1	2	54	1	14	53	1	26	59	2	9	13	2	21	37	3	4	11	3	16	58
June 1	6	2	4	0	0	4	13	18	4	26	56	5	10	55	5	25	15	6	9	54	6	24	49
8	14	2	7	9	51	7	24	53	8	9	43	8	24	13	9	8	18	9	21	55	10	5	3
15	21	2	10	17	47	11	0	8	11	12	14	11	24	8	0	5	58	0	17	46	0	29	38
22	28	2	1	11	36	1	23	43	2	6	1	2	18	29	3	1	9	3	14	0	3	27	2
29	5	3	4	10	16	4	23	43	5	7	23	5	21	17	6	5	27	6	19	50	7	4	23
July 6	12	3	7	19	3	8	3	42	8	18	14	9	2	30	9	16	26	9	29	58	10	13	5
13	20	3	10	25	48	11	8	11	11	20	19	0	2	15	0	14	6	0	25	57	1	7	52
20	26	3	1	19	55	2	2	10	2	14	39	2	27	22	3	10	19	3	23	31	4	6	55
27	3	4	4	20	30	5	4	15	5	18	9	6	2	10	6	16	18	7	0	31	7	14	47
Aug. 3	11	4	7	29	4	8	13	17	8	27	22	9	11	14	9	24	50	10	8	8	10	21	5
10	18	4	11	3	44	11	16	5	11	28	12	0	10	10	0	22	2	1	3	54	1	15	50
17	25	4	1	27	56	2	10	15	2	22	50	3	5	43	3	18	56	4	2	27	4	16	15
24	2	5	5	0	16	5	14	26	5	28	43	6	13	2	6	27	20	7	11	33	7	25	41
31	10	5	8	9	41	8	23	31	9	7	9	9	20	34	10	3	46	10	16	43	10	29	24
Sept. 7	17	5	11	11	52	11	24	7	0	6	11	0	18	7	0	29	59	1	11	51	1	23	47
14	23	5	2	5	51	2	18	9	3	0	45	3	13	41	3	27	0	4	10	43	4	24	48
21	30	5	5	9	12	5	23	49	6	8	33	6	23	17	7	7	55	7	22	21	8	6	31
28	8	6	8	20	24	9	4	0	9	17	19	10	0	21	10	13	10	10	25	46	11	8	10
Oct. 5	15	6	11	20	25	0	2	31	0	14	30	0	26	24	1	8	15	1	20	6	2	2	1
12	22	6	2	14	3	2	26	18	3	8	48	3	21	40	4	4	55	4	18	38	5	2	48
19	29	6	5	17	23	6	2	17	6	17	24	7	2	33	7	17	34	8	2	19	8	16	42
26	7	7	9	0	40	9	14	13	9	27	23	10	10	13	10	22	46	11	5	6	11	17	16
Nov. 2	14	7	11	29	19	0	11	16	0	23	10	1	5	2	1	16	54	1	28	47	2	10	44
9	20	7	2	22	47	3	4	59	3	17	26	4	0	11	4	13	18	4	26	51	5	10	53
16	27	7	5	25	23	6	10	18	6	25	31	7	10	52	7	26	9	8	11	11	8	25	50
23	5	8	9	10	0	9	23	40	10	6	52	10	19	40	11	2	7	11	14	20	11	26	22
30	12	8	0	8	17	0	20	9	1	2	0	1	13	53	1	25	48	2	7	46	2	19	50
Dec. 7	18	8	3	1	59	3	14	18	3	26	47	4	9	31	4	22	33	5	5	57	5	19	46
14	25	8	6	4	1	6	18	41	7	3	41	7	18	54	8	4	9	8	19	14	9	4	0
21	3	9	9	18	19	10	2	9	10	15	29	10	28	22	11	10	53	11	23	5	0	5	6
28	10	9	0	16	59	0	28	50	1	10	41	1	22	35	2	4	35	2	16	42	2	28	57
Jan. 4	17	9	3	11	20		—			—			—			—			—			—	

Rahu (रा ☊ वी) on 1st of each month	Jan. :	6 13 7	5 11 28	5 9 59	5 8 21
	May :	5 6 45	5 5 7	5 3 32	5 1 52
	Sept. :	5 14	4 28 38	4 27 0	4 25 25

Nirayana Longitudes of Herschel (♅) and Neptune (♆)

At 5-30 P.M. I.S.T. on 1st of each month

	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.
	1900	1900	1904	1904	1908	1908	1912	1912
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan.	7 17 42	2 2 44	8 4 6	2 11 51	8 20 3	2 21 0	9 5 39	3 0 7
Feb.	19 10	2 2	5 48	11 5	21 52	20 10	7 28	2 29 15
Mar.	19 54	1 45	6 56	10 40	23 16	19 38	9 2	28 37
Apr.	19 55	1 57	7 25	10 42	24 10	19 31	10 16	28 21
May	19 13	2 36	7 7	11 14	24 17	19 55	10 48	28 36
June	18 1	3 37	6 10	12 10	23 40	20 45	10 35	2 29 20
July	16 51	4 44	4 58	13 16	22 35	21 48	9 45	3 0 20
Aug.	16 6	5 47	3 54	14 22	21 22	22 56	8 32	1 28
Sept.	16 5	6 31	3 26	15 13	20 32	23 53	7 27	2 20
Oct.	16 50	6 48	3 43	15 37	20 23	24 26	6 55	3 10
Nov.	18 15	6 33	4 47	15 32	21 2	24 30	7 7	3 23
Dec.	7 20 1	2 5 54	8 6 21	2 14 59	8 22 18	2 24 4	9 8 2	3 3 5
	1901	1901	1905	1905	1909	1909	1913	1913
Jan.	7 21 52	2 5 1	8 8 12	2 14 9	8 24 1	2 23 16	9 9 33	3 2 21
Feb.	23 23	4 16	9 55	13 21	25 50	22 25	11 21	1 30
Mar.	24 14	3 58	11 5	12 54	27 14	21 52	12 54	0 52
Apr.	24 22	4 8	11 41	12 54	28 14	21 43	14 13	0 34
May	23 46	4 46	11 30	13 24	28 28	22 5	14 51	0 46
June	22 37	5 45	10 37	14 19	27 57	22 53	14 44	1 28
July	21 26	6 52	9 26	15 54	26 55	23 56	13 58	2 27
Aug.	20 35	7 56	8 19	16 31	25 42	25 4	12 48	3 35
Sept.	20 26	8 42	7 44	17 23	24 47	26 2	11 40	4 37
Oct.	21 4	9 0	7 55	17 50	24 31	26 37	11 2	5 20
Nov.	22 25	8 48	8 52	17 47	25 3	26 43	11 6	5 35
Dec.	7 24 8	2 8 11	8 10 22	2 17 16	8 26 14	2 26 20	9 11 56	3 5 20
	1902	1902	1906	1906	1910	1910	1914	1914
Jan.	7 25 59	2 7 18	8 12 10	2 16 26	8 27 55	2 25 33	9 13 23	3 4 38
Feb.	27 34	6 33	13 56	15 37	8 29 44	24 42	15 9	3 46
Mar.	28 30	6 12	15 10	15 9	9 1 11	24 7	16 44	3 7
Apr.	28 47	6 19	15 53	15 6	2 16	23 56	18 7	2 46
May	28 17	6 55	15 48	15 34	2 37	24 15	18 51	2 56
June	27 11	7 53	15 1	16 27	2 12	25 1	18 51	3 35
July	25 59	8 59	13 51	17 31	1 14	26 3	18 10	4 33
Aug.	25 3	10 4	12 42	18 39	9 0 0	27 11	17 2	5 41
Sept	24 47	10 52	12 1	19 33	8 29 1	28 11	15 52	6 45
Oct.	25 18	11 13	12 5	20 2	28 39	28 48	15 8	7 29
Nov.	26 32	11 3	12 55	20 2	8 29 4	28 57	15 6	7 47
Dec.	7 28 13	2 10 28	8 14 20	2 19 33	9 0 10	2 28 35	9 15 50	3 7 35
	1903	1903	1907	1907	1911	1911	1915	1915
Jan.	8 0 3	2 9 35	8 16 8	2 18 43	9 1 48	2 27 50	9 17 12	3 6 54
Feb	1 43	8 49	17 55	17 53	3 37	26 59	18 57	6 2
Mar.	2 44	8 26	19 13	17 24	5 6	26 23	20 32	5 22
Apr.	3 7	8 30	20 2	17 18	6 17	26 9	21 59	4 59
May	2 44	9 3	20 4	17 44	6 44	26 25	22 49	5 6
June	1 43	10 1	19 22	18 35	6 26	27 10	22 56	5 43
July	8 0 30	11 6	18 15	19 39	5 31	28 11	22 21	6 40
Aug.	7 29 29	12 12	17 4	20 47	4 18	2 29 19	21 14	7 48
Sept.	29 7	13 2	16 17	21 42	3 16	3 0 20	20 3	8 52
Oct.	7 29 31	13 25	16 14	22 14	2 48	0 59	19 15	9 38
Nov.	8 0 39	13 18	16 58	22 16	3 5	1 11	19 6	9 59
Dec.	8 2 15	2 12 44	8 18 18	2 21 49	9 4 6	3 0 52	9 19 43	3 9 49

Nirayana Longitudes of Herschel & Neptune—contd.

	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.
	1916	1916	1920	1920	1924	1924	1928	1928
	s. ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Jan.	9 21 1	3 9 9	10 6 15	3 18 12	10 21 28	3 27 11	11 6 51	4 6 4
Feb.	22 44	8 18	7 47	17 22	22 45	26 25	7 49	5 23
Mar.	24 23	7 35	9 26	16 36	24 19	25 37	9 14	4 35
Apr.	25 53	7 11	11 6	16 5	26 4	24 59	10 58	3 52
May	26 40	7 17	12 18	16 2	27 30	24 48	12 35	3 32
June	26 59	7 53	12 54	16 30	28 28	25 6	13 51	3 42
July	26 27	8 49	12 45	17 20	28 42	25 50	14 29	4 19
Aug.	25 23	9 57	11 55	18 26	28 13	26 53	14 22	5 18
Sept.	24 11	11 2	10 44	19 33	27 10	28 2	13 35	6 26
Oct.	23 19	11 49	9 39	20 26	25 59	29 0	12 26	7 28
Nov.	23 6	12 11	9 2	20 57	25 4	29 38	11 17	8 14
Dec.	9 23 38	3 12 2	10 9 11	3 20 57	10 24 48	3 29 47	11 10 40	4 8 31
	1917	1917	1921	1921	1925	1925	1929	1929
Jan.	9 24 53	3 11 25	10 10 4	3 20 26	10 25 18	3 29 24	11 10 46	4 8 17
Feb	26 34	10 34	11 33	19 37	26 32	28 38	11 40	7 37
Mar.	28 11	9 52	13 9	18 52	28 1	27 52	12 59	6 51
Apr.	9 29 43	9 25	14 50	18 18	10 29 47	27 12	14 43	6 6
May	10 0 43	9 29	16 7	18 13	11 1 16	26 59	16 21	5 45
June	1 1	10 3	16 48	18 38	2 19	27 15	17 42	5 52
July	10 0 35	10 57	16 45	19 27	2 39	27 57	18 25	6 27
Aug.	9 29 34	12 4	16 1	20 32	2 16	3 28 59	18 25	7 25
Sept.	28 22	13 10	14 51	21 40	1 17	4 0 7	17 43	8 32
Oct.	27 26	13 59	13 44	22 34	11 0 6	1 6	16 35	9 35
Nov.	27 6	14 23	13 2	23 7	10 29 6	1 47	15 24	10 23
Dec.	9 27 32	3 14 17	10 13 4	3 23 10	10 28 44	4 1 58	11 14 41	4 10 43
	1918	1918	1922	1923	1926	1926	1930	1930
Jan.	9 28 41	3 13 41	10 13 51	3 22 41	10 29 8	4 1 37	11 14 40	4 10 31
Feb.	10 0 19	12 50	15 17	21 53	11 0 17	0 54	15 28	9 52
Mar.	1 56	12 7	16 51	21 7	1 44	4 0 7	16 44	9 6
Apr.	3 31	11 39	18 34	20 32	3 29	3 29 26	18 26	8 20
May	4 35	11 40	19 54	20 24	5 2	29 10	20 6	7 56
June	5 0	12 11	20 42	20 47	6 10	3 29 23	21 31	8 1
July	4 40	13 4	20 45	21 34	6 36	4 0 4	22 20	8 34
Aug.	3 43	14 11	20 6	22 39	6 19	1 5	22 27	9 30
Sept.	2 30	15 17	18 58	23 46	5 23	2 13	21 49	10 38
Oct.	1 31	16 8	17 49	24 42	4 13	3 13	20 44	11 41
Nov.	1 5	16 35	17 2	25 18	3 9	3 56	19 32	12 31
Dec.	10 1 24	3 16 30	10 16 57	3 25 22	11 2 42	4 4 10	10 18 44	4 12 53
	1919	1919	1923	1923	1927	1927	1931	1931
Jan.	10 2 28	3 15 56	10 17 40	3 24 56	11 2 59	4 3 51	11 18 36	4 12 44
Feb.	4 3	15 6	19 1	24 9	4 2	3 8	19 17	12 7
Mar.	5 39	14 22	20 34	23 24	5 27	2 22	20 29	11 21
Apr.	7 18	13 52	22 18	22 46	7 12	1 39	22 10	10 35
May	8 26	13 51	23 42	22 36	8 47	1 21	23 51	10 9
June	8 57	14 20	24 35	22 57	10 0	1 32	25 20	10 11
July	8 44	15 11	24 45	23 42	10 32	2 10	26 14	10 42
Aug	7 51	16 17	24 11	24 45	10 21	3 10	26 28	11 36
Sept.	6 39	17 24	23 8	25 54	9 30	4 18	25 56	12 44
Oct.	5 36	18 16	21 56	26 51	8 20	5 20	24 53	13 48
Nov.	5 4	18 46	21 4	27 28	7 14	6 4	23 40	14 39
Dec.	10 5 17	3 18 44	10 20 53	3 27 35	11 6 40	4 6 20	11 22 47	4 15 4

Nirayana Longitudes of Herschel & Neptune—concld.

	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.	Hers.	Nept.
	1932	1932	1935	1935	1938	1938	1941	1941
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan.	11 22 33	4 14 57	0 4 33	4 21 34	0 16 50	4 28 8	0 29 29	5 4 40
Feb.	23 8	14 22	4 51	21 4	16 48	27 44	29 7	4 22
Mar.	24 19	13 35	5 46	20 21	17 29	27 3	0 29 30	3 45
Apr.	25 58	12 48	7 18	19 31	18 50	26 12	1 0 37	2 54
May	27 40	12 20	9 0	19 0	20 30	25 35	2 12	2 13
June	11 29 11	12 21	10 40	18 52	22 15	25 22	4 0	1 52
July	0 0 10	12 51	11 53	19 15	23 41	25 38	5 34	2 2
Aug.	0 28	13 44	12 31	20 3	24 36	26 22	6 46	2 40
Sept	0 0 1	14 51	12 23	21 8	24 47	27 25	7 17	3 40
Oct.	11 29 1	15 56	11 35	22 14	24 14	28 31	7 2	4 45
Nov.	27 45	16 48	10 22	23 11	23 6	4 29 32	6 6	5 49
Dec.	11 26 50	4 17 14	0 9 15	4 23 44	0 21 54	5 0 10	1 4 52	5 6 33
	1933	1933	1936	1936	1939	1939		
Jan.	11 26 31	4 17 9	0 8 37	4 23 46	0 21 0	5 0 19		
Feb.	27 2	16 35	8 48	23 18	20 52	4 29 56		
Mar.	28 6	15 50	9 40	22 34	21 26	29 17		
Apr.	11 29 44	15 2	11 9	21 44	22 44	28 26		
May	0 1 26	14 33	12 51	21 10	24 22	27 47		
June	3 0	14 31	14 33	21 2	26 8	27 32		
July	4 4	14 58	15 50	21 23	27 37	27 46		
Aug.	4 29	15 51	16 33	22 11	28 39	28 28		
Sept.	4 8	16 57	16 30	23 16	28 57	4 29 30		
Oct.	3 11	18 2	15 46	24 22	28 29	5 0 36		
Nov.	1 57	18 56	14 34	25 19	27 25	1 37		
Dec.	0 0 57	4 19 24	0 13 25	4 25 54	0 26 12	5 2 18		
	1934	1934	1937	1937	1940	1940		
Jan.	0 0 31	4 19 21	0 12 42	4 25 57	0 25 13	5 2 29		
Feb.	0 55	18 49	12 47	25 30	24 58	2 9		
Mar.	1 55	18 5	13 33	24 48	25 28	1 29		
Apr.	3 30	17 16	14 59	23 58	26 42	5 0 38		
May	5 12	16 45	16 40	23 23	0 28 18	4 29 58		
June	6 49	16 41	18 24	23 12	1 0 6	29 42		
July	7 58	17 6	19 45	23 31	1 38	4 29 54		
Aug.	8 30	17 57	20 35	24 17	2 44	5 0 35		
Sept.	8 15	19 2	20 38	25 20	3 7	1 36		
Oct.	7 22	20 8	19 59	26 27	2 44	2 48		
Nov.	6 8	21 3	18 49	27 26	1 43	3 45		
Dec.	0 5 5	4 21 34	0 17 38	4 28 2	1 0 28	5 4 36		

Nirayana Longitude of PLUTO

At 5-30 P.M. I.S.T. on 1st of each month

	1900	1904	1908	1912	1916	1920	1924
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan.	1 22 41	1 26 43	2 0 52	2 4 59	2 9 23	2 13 52	2 18 31
Feb	22 17	26 15	0 24	4 31	8 50	13 19	17 57
March	22 9	26 7	0 12	4 18	8 34	12 59	17 35
April	22 21	26 15	0 17	4 21	8 35	12 57	17 28
May	22 51	26 43	0 42	4 45	8 55	13 15	17 44
June	23 30	27 22	1 20	5 23	9 31	13 50	18 18
July	24 10	28 3	2 2	6 5	10 14	14 33	18 59
August	24 45	28 37	2 39	6 44	10 56	15 16	19 45
Sept	25 5	29 1	3 4	7 13	11 27	15 49	20 21
October	25 6	29 4	3 10	7 22	11 40	16 3	20 39
Nov.	24 47	28 48	2 56	7 11	11 31	15 58	20 38
Dec.	1 24 17	1 28 18	2 2 28	2 6 44	2 11 5	2 15 35	2 20 17
	1901	**1905**	**1909**	**1913**	**1917**	**1921**	**1925**
Jan.	1 23 44	1 27 44	2 1 53	2 5 57	2 10 29	2 15 0	2 19 42
Feb	23 17	27 16	1 24	5 38	9 57	14 26	19 7
March	23 9	27 6	1 12	5 23	9 38	14 6	18 44
April	23 21	27 16	1 18	5 26	9 39	14 1	18 38
May	23 48	27 41	1 42	5 48	9 59	14 19	18 53
June	24 27	28 21	2 20	6 24	10 35	14 56	19 26
July	25 8	29 2	3 2	7 6	11 18	15 39	20 8
August	25 43	1 29 40	3 41	7 47	12 0	16 23	20 53
Sept.	26 3	2 0 3	4 6	8 15	12 32	16 58	21 30
October	26 4	2 0 7	4 13	8 25	12 45	17 16	21 50
Nov.	25 47	1 29 51	4 0	8 14	12 38	17 10	21 49
Dec.	1 25 17	1 29 22	2 3 32	2 7 48	2 12 13	2 16 47	2 21 29
	1902	**1906**	**1910**	**1914**	**1918**	**1922**	**1926**
Jan.	1 24 42	1 28 45	2 2 55	2 7 9	2 11 34	2 16 10	2 20 53
Feb.	24 18	28 18	2 25	6 42	11 4	15 34	20 19
March	24 9	28 6	2 13	6 26	10 45	15 13	19 55
April	24 19	28 14	2 18	6 28	10 44	15 8	19 48
May	24 46	28 40	2 42	6 49	11 4	15 26	20 1
June	25 25	1 29 20	3 20	7 26	11 40	16 1	20 34
July	26 6	2 0 1	4 1	8 8	12 22	16 44	21 17
August	26 40	0 39	4 41	8 48	13 4	17 29	22 2
Sept.	27 1	1 3	5 8	9 18	13 36	18 5	22 40
October	27 4	1 8	5 15	9 29	13 50	18 22	23 1
Nov.	26 47	0 53	5 3	9 19	13 44	18 18	23 2
Dec.	1 26 17	2 0 25	2 4 35	2 8 53	2 13 20	2 17 55	2 22 41
	1903	**1907**	**1911**	**1915**	**1919**	**1923**	**1927**
Jan.	1 25 43	1 29 49	2 3 58	2 8 18	2 12 43	2 17 20	2 22 6
Feb.	25 17	29 22	3 28	7 46	12 11	16 46	21 30
March	25 8	29 9	3 15	7 29	11 52	16 24	21 6
April	25 17	29 16	3 19	7 31	11 50	16 19	20 58
May	25 44	1 29 41	3 42	7 52	12 9	16 35	21 11
June	26 23	2 0 20	4 21	8 28	12 44	17 8	21 44
July	27 3	1 1	5 3	9 11	13 27	17 52	22 32
August	27 39	1 39	5 43	9 53	14 9	18 36	23 13
Sept	28 1	2 2	6 11	10 22	14 42	19 13	23 52
October	28 4	2 8	6 19	10 33	15 2	19 31	24 13
Nov.	27 49	1 52	6 7	10 25	14 56	19 29	24 16
Dec.	1 27 19	2 1 23	2 5 41	2 10 0	2 14 28	2 19 4	2 23 56

Nirayana Longitude of PLUTO—contd.

	1928	1930	1932	1934	1936	1938	1940
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan.	2 23 20	2 25 48	2 28 22	3 0 58	3 3 41	3 6 23	3 9 12
Feb.	22 42	25 12	27 44	3 0 20	3 1	5 43	8 33
March	22 17	24 46	27 15	2 29 48	2 30	5 10	7 58
April	22 8	24 35	27 4	2 29 33	2 12	4 52	7 38
May	22 21	24 46	27 14	2 29 40	2 18	4 58	7 39
June	22 54	25 16	27 44	3 0 11	2 46	5 27	8 6
July	23 38	26 0	28 26	0 54	3 29	6 10	8 48
August	24 24	26 47	29 14	1 42	4 19	7 1	9 39
Sept.	25 4	27 28	2 29 57	2 28	5 5	7 49	10 27
Oct.	25 26	27 52	3 0 23	2 56	5 37	8 21	11 4
Nov.	25 27	27 56	0 29	3 5	5 47	8 32	11 18
Dec.	2 25 8	2 27 39	3 0 13	3 2 50	3 5 34	3 8 20	3 11 9
	1929	1931	1933	1935	1937	1939	1941
Jan.	2 24 33	2 27 5	2 29 39	3 2 20	3 5 0	3 7 49	3 10 37
Feb.	23 56	26 28	29 4	1 39	4 20	7 8	9 59
March	23 30	26 0	28 33	1 9	3 38	6 36	9 20
April	23 20	25 49	28 19	0 54	3 30	6 17	9 0
May	23 33	25 59	28 29	1 1	3 35	6 20	9 1
June	24 4	26 32	28 59	1 28	4 3	6 45	9 27
July	24 48	27 12	2 29 37	2 11	4 45	7 27	10 9
August	25 32	27 59	3 0 30	3 1	5 36	8 18	11 0
Sept.	26 14	28 41	1 14	3 46	6 23	9 6	11 49
Oct.	26 38	29 7	1 38	4 17	6 53	9 42	12 26
Nov.	26 41	29 11	1 45	4 27	7 7	9 55	12 41
Dec.	2 26 23	2 28 55	3 1 31	3 4 14	3 6 56	3 9 46	3 12 33

Latitude and declination of PLUTO

(For 1st January each year)

Year	Lat.	Decli	Year	Lat.	Decli.	Year	Lat.	Decli
1900	9° S 46′	12° N 54′	1914	5° S 51′	17° N 36′	1928	1° S 2′	21° N 26′
1901	9 31	13 15	1915	5 33	17 54	1929	0 40	21 41
1902	9 15	13 36	1916	5 13	18 13	1930	0 S 15	21 53
1903	9 0	13 58	1917	4 54	18 31	1931	0 N 8	22 7
1904	8 45	14 18	1918	4 34	18 49	1932	0 31	22 27
1905	8 29	14 38	1919	4 14	19 6	1933	0 56	22 29
1906	8 13	14 59	1920	3 54	19 23	1934	1 19	22 38
1907	7 55	15 18	1921	3 34	19 40	1935	1 43	22 45
1908	7 39	15 39	1922	3 13	19 57	1936	2 8	22 55
1909	7 21	15 59	1923	2 52	20 13	1937	2 32	23 4
1910	7 4	16 19	1924	2 31	20 29	1938	2 58	23 11
1911	6 46	16 38	1925	2 9	20 43	1939	3 23	23 18
1912	6 28	16 57	1926	1 46	20 59	1940	3 49	23 23
1913	6 S 10	17 N 17	1927	1 S 24	21 N 13	1941	4 N 15	23 N 28

SIDEREAL TIME

Table I

Sidereal Time at 12h noon local mean time for days of year.)

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time		
	JAN.		
	h	m	s
1	18	41	48
2	18	45	45
3	18	49	42
4	18	53	38
5	18	57	35
6	19	1	31
7	19	5	28
8	19	9	24
9	19	13	21
10	19	17	18
11	19	21	14
12	19	25	11
13	19	29	7
14	19	33	4
15	19	37	0
16	19	40	57
17	19	44	53
18	19	48	50
19	19	52	47
20	19	56	43
21	20	0	40
22	20	4	36
23	20	8	33
24	20	12	29
25	20	16	26
26	20	20	22
27	20	24	19
28	20	28	16
29	20	32	12
30	20	36	9
31	20	40	5
	FEB.		
1	20	44	2
2	20	47	58
3	20	51	55
4	20	55	51
5	20	59	48
6	21	3	45
7	21	7	41
8	21	11	38
9	21	15	34
10	21	19	31
11	21	23	27
12	21	27	24
13	21	31	20
14	21	35	17
15	21	39	14
	FEB.		
	h	m	s
16	21	43	10
17	21	47	7
18	21	51	3
19	21	55	0
20	21	58	56
21	22	2	53
22	22	6	49
23	22	10	46
24	22	14	43
25	22	18	39
26	22	22	36
27	22	26	32
28	22	30	29
29	22	34	25
	MAR.		
1	22	34	25
2	22	38	22
3	22	42	18
4	22	46	15
5	22	50	12
6	22	54	8
7	22	58	5
8	23	2	1
9	23	5	58
10	23	9	54
11	23	13	51
12	23	17	47
13	23	21	44
14	23	25	41
15	23	29	37
16	23	33	34
17	23	37	30
18	23	41	27
19	23	45	23
20	23	49	20
21	23	53	16
22	23	57	13
23	0	1	10
24	0	5	6
25	0	9	3
26	0	12	59
27	0	16	56
28	0	20	52
29	0	24	49
30	0	28	45
31	0	32	42
	APRIL		
	h	m	s
1	0	36	39
2	0	40	35
3	0	44	32
4	0	48	28
5	0	52	25
6	0	56	21
7	1	0	18
8	1	4	14
9	1	8	11
10	1	12	8
11	1	16	4
12	1	20	1
13	1	23	57
14	1	27	54
15	1	31	50
16	1	35	47
17	1	39	43
18	1	43	40
19	1	47	37
20	1	51	33
21	1	55	30
22	1	59	26
23	2	3	23
24	2	7	19
25	2	11	16
26	2	15	12
27	2	19	9
28	2	23	6
29	2	27	2
30	2	30	59
	MAY		
1	2	34	55
2	2	38	52
3	2	42	48
4	2	46	45
5	2	50	41
6	2	54	38
7	2	58	35
8	3	2	31
9	3	6	28
10	3	10	24
11	3	14	21
12	3	18	17
13	3	22	14
14	3	26	10
15	3	30	7
16	3	34	4
	MAY		
	h	m	s
17	3	38	0
18	3	41	56
19	3	45	53
20	3	49	50
21	3	53	46
22	3	57	43
23	4	1	39
24	4	5	36
25	4	9	33
26	4	13	29
27	4	17	26
28	4	21	22
29	4	25	19
30	4	29	15
31	4	33	12
	JUNE		
1	4	37	8
2	4	41	5
3	4	45	2
4	4	48	58
5	4	52	55
6	4	56	51
7	5	0	48
8	5	4	44
9	5	8	41
10	5	12	37
11	5	16	34
12	5	20	31
13	5	24	27
14	5	28	24
15	5	32	20
16	5	36	17
17	5	40	13
18	5	44	10
19	5	48	6
20	5	52	3
21	5	56	0
22	5	59	56
23	6	3	53
24	6	7	49
25	6	11	46
26	6	15	42
27	6	19	39
28	6	23	35
29	6	27	32
30	6	31	29
	JULY		
	h	m	s
1	6	35	25
2	6	39	22
3	6	43	18
4	6	47	15
5	6	51	11
6	6	55	8
7	6	59	4
8	7	3	1
9	7	6	58
10	7	10	54
11	7	14	51
12	7	18	47
13	7	22	44
14	7	26	40
15	7	30	37
16	7	34	33
17	7	38	30
18	7	42	27
19	7	46	23
20	7	50	20
21	7	54	16
22	7	58	13
23	8	2	9
24	8	6	6
25	8	10	2
26	8	13	59
27	8	17	56
28	8	21	52
29	8	25	49
30	8	29	45
31	8	33	42
	AUG.		
1	8	37	38
2	8	41	35
3	8	45	31
4	8	49	28
5	8	53	25
6	8	57	21
7	9	1	18
8	9	5	14
9	9	9	11
10	9	13	7
11	9	17	4
12	9	21	0
13	9	24	57
14	9	28	54
15	9	32	50

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Sidereal Time : Table I—*contd.*

Date	Sid. Time		
	AUGUST		
	h	m	s
16	9	36	47
17	9	40	43
18	9	44	40
19	9	48	36
20	9	52	33
21	9	56	29
22	10	0	26
23	10	4	23
24	10	8	19
25	10	12	16
26	10	16	12
27	10	20	9
28	10	24	5
29	10	28	2
30	10	31	58
31	10	35	55
	SEPT.		
1	10	39	52
2	10	43	48
3	10	47	45
4	10	51	41
5	10	55	38
6	10	59	34
7	11	3	31
8	11	7	27
9	11	11	24
10	11	15	21
11	11	19	17

Date	Sid. Time		
	SEPT.		
	h	m	s
12	11	23	14
13	11	27	10
14	11	31	7
15	11	35	3
16	11	39	0
17	11	42	56
18	11	46	53
19	11	50	50
20	11	54	46
21	11	58	43
22	12	2	39
23	12	6	36
24	12	10	32
25	12	14	29
26	12	18	25
27	12	22	22
28	12	26	19
29	12	30	15
30	12	34	12
	OCT.		
1	12	38	8
2	12	42	5
3	12	46	1
4	12	49	58
5	12	53	54
6	12	57	51
7	13	1	48
8	13	5	44

Date	Sid. Time		
	OCT.		
	h	m	s
9	13	9	41
10	13	13	37
11	13	17	34
12	13	21	30
13	13	25	27
14	13	29	23
15	13	33	20
16	13	37	16
17	13	41	13
18	13	45	10
19	13	49	6
20	13	53	3
21	13	56	59
22	14	0	56
23	14	4	52
24	14	8	49
25	14	12	45
26	14	16	42
27	14	20	39
28	14	24	35
29	14	28	32
30	14	32	28
31	14	36	25
	NOV.		
1	14	40	21
2	14	44	18
3	14	48	14
4	14	52	11

Date	Sid. Time		
	NOV.		
	h	m	s
5	14	56	8
6	15	0	4
7	15	4	1
8	15	7	57
9	15	11	54
10	15	15	50
11	15	19	47
12	15	23	43
13	15	27	40
14	15	31	37
15	15	35	33
16	15	39	30
17	15	43	26
18	15	47	23
19	15	51	19
20	15	55	16
21	15	59	12
22	16	3	9
23	16	7	6
24	16	11	2
25	16	14	59
26	16	18	55
27	16	22	52
28	16	26	48
29	16	30	45
30	16	34	41
	DEC.		
1	16	38	38

Date	Sid. Time		
	DEC.		
	h	m	s
2	16	42	35
3	16	46	31
4	16	50	28
5	16	54	24
6	16	58	21
7	17	2	17
8	17	6	14
9	17	10	10
10	17	14	7
11	17	18	4
12	17	22	0
13	17	25	57
14	17	29	53
15	17	33	50
16	17	37	46
17	17	41	43
18	17	45	39
19	17	49	36
20	17	53	33
21	17	57	29
22	18	1	26
23	18	5	22
24	18	9	19
25	18	13	15
26	18	17	12
27	18	21	8
28	18	25	5
29	18	29	2
30	18	32	58
31	18	36	55

SIDEREAL TIME—Table II

(Correction to the result of Table I for years 1900 to 1943)

Year	Correction	Year	Correction	Year	Correction	Year	Correction	Year	Correction
	m s		m s		m s		m s		m s
1900	0 0	1909	−0 43	1918	−1 25	1927	−2 08	1936*	−2 50
1901	−0 57	1910	−1 40	1919	−2 23	1928*	−3 05	1936†	+1 06
1902	−1 55	1911	−2 38	1920*	−3 20	1928†	+0 51	1937	+0 09
1903	−2 52	1912*	−3 35	1920†	+0 37	1929	−0 06	1938	−0 49
1904*	−3 49	1912†	+0 22	1921	−0 21	1930	−1 03	1939	−1 46
1904†	+0 07	1913	−0 36	1922	−1 18	1931	−2 01	1940*	−2 43
1905	−0 50	1914	−1 33	1923	−2 15	1932	−2 58	1940†	+1 13
1906	−1 48	1915	−2 30	1924*	−3 12	1932†	+0 59	1941	+0 16
1907	−2 45	1916*	−3 27	1924†	+0 44	1933	+0 01	1942	−0 41
1908*	−3 42	1916†	+0 29	1925	−0 13	1934	−0 56	1943	−1 38
1908†	+0 14	1917	−0 28	1926	−1 11	1935	−1 53	—	—

* For January & February only. † For March to December.

Correction for Calcutta −4 sec., For Bombay +6s, For Delhi +3s, For Madras +1s.

EXAMPLE:—Find the sidereal time at 12*h* noon L.M.T. at Calcutta on May 7, 1939. Sid. time for May 7 is 2*h* 58*m* 35*s*. Correction for 1939 is −1*m* 46*s*. and for Calcutta is −4 sec. Hence the reqd. sid. time is 2*h* 56*m* 45*s*. Now the sidereal time for any hour of the day can easily be found by adding to it the local time from this noon and also 10 secs. per hour of the interval from noon added.

LATITUDES

Celestial latitudes of Neptune, Herschel and Saturn are given for 1st January each year, and of Jupiter and Mars for the 1st of the months mentioned.

Year	Nept.	Hers.	Satn.	Jupiter		Mars			
				January	July	January	April	July	October
1900	1° S 18′	0° N 4′	1° N 0′	0° N 49′	0° N 48′	0° S 56′	1° S 1′	0° S 14′	1° N 4′
1901	1 15	0 N 0	0 36	0 N 18	0 N 2	3 N 14	3 N 14	0 N 35	0 S 40
1902	1 12	0 S 3	0 N 10	0 S 16	0 S 47	1 S 7	0 S 41	0 N 16	1 N 15
1903	1 8	0 6	0 S 16	0 49	1 15	2 N 24	3 N 3	0 S 9	1 S 18
1904	1 5	0 10	0 42	1 13	1 15	1 S 9	0 S 15	0 N 41	1 N 17
1905	1 2	0 13	1 8	1 17	0 54	1 N 41	1 N 23	1 S 50	2 S 7
1906	0 58	0 16	1 32	0 53	0 S 21	0 S 58	0 N 14	0 N 57	1 N 13
1907	0 54	0 19	1 53	0 S 5	0 N 14	1 N 4	0 S 5	4 S 58	3 S 24
1908	0 51	0 22	2 12	0 N 42	0 45	0 S 30	0 N 46	1 N 9	1 N 8
1909	0 47	0 24	2 25	1 11	1 18	0 N 30	0 S 51	3 S 39	4 S 28
1910	0 43	0 27	2 32	1 19	1 19	0 N 28	1 N 19	1 N 14	0 N 47
1911	0 39	0 29	2 32	1 8	1 11	0 S 0	1 S 10	2 S 7	1 S 14
1912	0 35	0 32	2 24	0 45	0 N 42	2 N 13	1 N 53	1 N 13	0 N 27
1913	0 31	0 34	2 6	0 N 14	0 S 5	0 S 27	1 S 15	1 S 10	0 19
1914	0 27	0 36	1 41	0 S 21	0 52	3 N 51	2 N 29	1 N 5	0 3
1915	0 23	0 38	1 7	0 53	1 17	0 S 49	1 S 6	0 S 28	0 N 55
1916	0 19	0 39	0 S 29	1 15	1 13	3 N 31	2 N 3	0 N 46	0 S 27
1917	0 14	0 41	0 N 10	1 15	0 50	1 S 4	0 S 49	0 6	1 N 12
1918	0 10	0 42	0 48	0 S 47	0 S 16	2 N 42	3 N 18	0 11	1 S 2
1919	0 6	0 43	1 21	0 N 2	0 N 18	1 S 10	0 S 26	0 N 32	1 N 17
1920	0 S 2	0 44	1 48	0 48	0 49	1 N 57	2 N 6	1 S 1	1 S 46
1921	0 N 2	0 44	2 8	1 13	1 11	1 S 4	0 3	0 N 51	1 N 15
1922	0 7	0 45	2 20	1 18	1 19	1 N 18	0 23	3 S 49	2 S 48
1923	0 11	0 45	2 25	1 5	1 9	0 S 43	0 N 34	1 N 5	1 7
1924	0 15	0 45	2 25	0 41	0 N 37	0 N 43	0 S 38	4 S 30	4 S 24
1925	0 19	0 45	2 18	0 N 9	0 S 12	0 2	1 N 6	1 N 13	0 N 54
1926	0 23	0 45	2 6	0 S 26	0 57	0 11	1 S 5	2 S 36	2 S 24
1927	0 27	0 44	1 51	0 57	1 18	1 N 26	1 N 40	1 N 14	0 N 36
1928	0 31	0 44	1 32	1 16	1 11	0 S 17	1 S 15	1 S 29	0 S 6
1929	0 35	0 43	1 10	1 13	0 45	3 N 25	2 N 15	1 N 9	0 N 13
1930	0 39	0 41	0 46	0 S 41	0 S 12	0 S 41	1 S 11	0 S 43	0 N 44
1931	0 43	0 40	0 N 21	0 N 9	0 N 23	3 N 48	2 N 51	0 N 55	0 S 14
1932	0 46	0 38	0 S 5	0 53	0 53	0 S 59	0 S 57	0 S 6	1 N 8
1933	0 50	0 37	0 31	1 15	1 13	3 N 2	3 N 18	0 N 27	0 S 48
1934	0 53	0 35	0 57	1 17	1 18	1 S 9	0 S 35	0 N 22	1 N 16
1935	0 57	0 32	1 22	1 3	1 6	2 N 13	2 N 46	0 S 25	1 S 28
1936	1 0	0 30	1 45	0 37	0 N 30	1 S 8	0 S 8	0 N 44	1 N 17
1937	1 4	0 28	2 4	0 N 4	0 S 19	1 N 32	0 N 59	2 S 27	2 S 21
1938	1 7	0 25	2 20	0 S 30	1 2	0 S 54	0 N 21	1 N 0	1 N 11
1939	1 10	0 22	2 30	1 1	1 18	0 N 56	0 S 18	5 S 4	3 S 47
1040	1 13	0 19	2 33	1 18	1 8	0 S 20	0 N 54	1 N 10	0 N 59
1941	1 N 16	0 S 16	2 S 28	1 S 11	0 S 41	0 N 23	0 S 57	3 S 15	3 S 51

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0′S	360°	45°	N3° 38′S	315°	90°	N5° 9′S	270°	135°	N3° 38′S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declinaton of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North ; if greater than 180° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.
0°	0° 0′	180°	23°	8° 57′	157°	46°	16° 39′	134°	69°	21° 49′	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	60	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place.*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, then true decli. = decli. of place + reduced lat.
If lat. is South, then true decli. = decli. of place − reduced lat.

When declination of place is South—

If lat. is North, then true decli. = decli of place − reduced lat.
If lat. is South, then true decli. = decli. of place + reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
0°	180°	180°	360°	0·917	50°	130°	230°	310°	0·963
10	170	190	350	0·920	60	120	240	300	0·977
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

EXAMPLE :—Find the declination of Mars on 1st Jan. 1931. N. long. of Mars on that date = 3s 22° 37′. *Ayanamsa* = 22° 53′. Therefore trop. long. = 4s 15° 30′ = 135° 30′. Now the *declination of place* is found to be 16°N12′ and the *multiplier* is found from the above table as 0·956. The latitude of Mars on that date is 3°N48′ = 228′. This multiplied by 0·956 gives 218′ = 3°38′. Here we get declination of place as north and the latitude also as north. Hence the true declination = 16°N12′ + 3°38′ = 19°N50′ This agrees with the actual value.

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ⊙. If ☽ − ⊙ is less than 12°, the 1st *tithi* of the light half *(Sukla paksha)* is then current. This *tithi* will remain current until ☽ − ⊙ becomes exactly 12° degrees. So for other *tithis.*

The following table shows the long. of ☽ − ⊙ indicating the end of each *tithi.* If ☽ − ⊙ is greater than 6 sings, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half *(Krishna paksha)* of the month.

☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Lunar Eclipses

(The time of mid-eclipse is given in Indian standard time)

Date	Middle of eclipse.		Half duration		Date	Middle of eclipse		Half duration	
			Partial	Total				Partial	Total
	h	m	m	m		h	m	m	m
1900 June 13	8	54	15	–	1921 April 22	13	16	102	23
1901 Oct. 27	20	46	54	–	,, Oct. 17	4	22	97	–
1902 April 28	0	21	107	40	1923 Mar. 3	9	5	68	–
,, Oct. 17	11	84	110	46	,, Aug. 26	16	8	46	–
1903 April 12	5	43	99	–	1924 Feb. 20	21	40	110	49
,, Oct. 6	20	45	95	–	,, Aug. 15	1	51	111	50
1905 Feb. 20	0	33	71	–	1925 Feb. 9	3	11	90	–
,, Aug. 15	9	9	59	–	,, Aug. 4	17	24	91	–
1906 Feb. 9	13	18	111	50	1927 June 15	13	54	100	12
,, Aug. 4	18	28	112	51	,, Dec. 8	23	6	108	42
1907 Jan. 29	19	12	88	–	1928 June 3	17	38	106	36
,, July 25	9	51	84	–	,, Nov. 27	14	34	104	31
1909 June 4	7	0	104	30	1930 April 13	11	31	40	–
,, Nov. 27	14	27	108	42	,, Oct. 8	0	32	18	–
1910 May 24	11	6	103	25	1931 April 3	1	41	110	47
,, Nov. 17	5	51	103	28	,, Sept. 27	1	15	107	40
1912 April 2	3	45	50	–	1932 Mar. 22	18	3	99	–
,, Sept. 26	17	14	40	–	,, Sept. 15	2	32	99	–
1913 Mar. 22	17	27	110	49	1934 Jan. 30	22	12	39	–
,, Sept. 15	18	17	109	45	,, July 26	17	49	85	–
1914 Mar. 12	9	45	97	–	1935 Jan. 19	21	20	107	42
,, Sept. 4	19	24	94	–	,, July 16	10	30	112	51
1916 Jan. 20	14	12	42	–	1936 Jan. 8	23	43	100	14
,, July 15	10	17	92	–	,, July 4	22	58	59	–
1917 Jan. 8	13	15	108	42	1937 Nov. 18	13	52	42	–
,, July 5	3	10	111	50	1938 May 14	14	16	102	23
,, Dec. 28	15	16	100	12	,, Nov. 8	3	56	107	42
1918 June 24	15	58	45	–	1939 May 3	20	44	104	32
1919 Nov. 8	5	15	46	–	,, Oct. 28	12	9	99	7
1920 May 3	7	19	105	35	1941 Mar. 13	17	25	60	–
,, Oct. 27	19	41	109	44	,, Sept. 5	23	17	28	–

***N.B.*—Eclipses have been taken from Oppolzer's book which gives approx. results.**

Ascendant and Tenth House

Ascendant and tenth house can be found with the help of the Sidereal Time from any available Tables of Ascendants. If the tables of ascendants on *nirayaṇa* basis as given at the end of the "Indian Ephemeris" is used, a correction is to be *added* to the degree and minute of the ascendant and the tenth house obtained from this table, at the rate of 50" per year by which the given year is earlier than the year for which the table is used.

Solar Eclipses

(The time of new-moon has been given in Indian standard time)

Date	New-moon	Date	New-moon	Date	New-moon
	h m		h m		h m
1900 May 28	20 20 t	1914 Feb. 25	5 32 r	1928 May 19	18 44 t
,, Nov. 22	12 47 r	,, Aug. 21	17 57 t	,, June 18	2 11 p
1901 May 18	11 8 t	1915 Feb. 14	10 1 r	,, Nov. 12	15 6 p
,, Nov. 11	13 5 r	,, Aug. 11	4 22 r	1929 May 9	11 38 t
1902 Aprii 8	19 21 p	1916 Feb. 3	21 36 t	,, Nov. 1	17 31 r
,, May 8	4 15 p	,, July 30	7 45 r	1930 Apr. 29	0 40 rt
,, Oct. 31	13 43 p	,, Dec. 25	2 2 p	,, Oct. 22	3 17 t
1903 Mar. 29	6 56 r	1917 Jan. 23	13 10 p	1931 Apr. 18	6 31 p
,, Sept. 21	10 0 t	,, June 19	18 33 p	,, Sept. 12	9 57 p
1904 Mar. 17	11 9 r	,, July 19	8 31 p	,, Oct. 11	18 35 p
,, Sept. 10	2 13 t	,, Dec. 14	14 48 r	1932 Mar. 7	13 15 r
1905 Mar. 6	10 50 r	1918 June 9	3 33 t	,, Sept. 1	1 25 t
,, Aug. 30	18 43 t	,, Dec. 3	20 49 r	1933 Feb. 24	18 14 r
1906 Feb. 23	13 28 p	1919 May 29	18 42 t	,, Aug. 21	11 19 r
,, July 21	18 29 p	,, Nov. 22	20 50 r	1934 Feb. 14	6 14 t
,, Aug. 20	6 57 p	1920 May 18	11 56 p	,, Aug. 10	14 16 r
1907 Jan. 14	11 27 t	,, Nov. 10	21 35 p	1935 Jan. 5	10 51 p
,, July 10	20 47 r	1921 Apr. 8	14 36 r	,, Feb 3	21 58 p
1908 Jan. 4	3 14 t	,, Oct. 1	17 56 t	,, July 1	1 15 p
,, June 28	22 2 r	1922 Mar. 28	18 34 r	,, July 30	15 3 p
,, Dec. 23	17 20 rt	,, Sept. 21	10 8 t	,, Dec. 25	23 20 r
1909 June 18	4 59 t	1923 Mar. 17	18 21 r	1936 June 19	10 45 t
,, Dec. 13	1 29 p	,, Sept. 11	2 23 t	,, Dec. 14	4 56 r
1910 May 9	11 3 t	1924 Mar. 5	21 28 p	1937 June 9	2 13 t
,, Nov. 2	7 26 p	,, Aug. 1	1 12 p	,, Dec. 3	4 42 r
1911 Apr. 29	3 56 t	,, Aug. 30	14 8 p	1938 May 29	19 30 t
,, Oct. 22	9 39 r	1925 Jan. 24	20 16 t	,, Nov. 22	5 35 p
1912 Apr. 17	17 10 rt	,, July 21	3 10 r	1939 Apr. 19	22 5 r
,, Oct. 10	19 11 t	1926 Jan. 14	12 5 t	,, Oct. 13	2 0 t
1913 Apr. 6	23 18 p	,, July 10	4 36 r	1940 Apr. 8	1 49 r
,, Sept. 1	2 8 p	1927 Jan. 4	1 59 rt	,, Oct. 1	18 12 t
,, Sept. 30	10 26 p	,, June 29	12 2 t	1941 Mar. 28	1 44 r
		,, Dec. 24	9 44 p	,, Sept. 21	10 8 t

Suffixes : p = partial solar eclipse. r = annular solar eclipse and t = total solar eclipse as visible at least from some part of the earth.

Sunrise and Sunset

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the "Indian Ephemeris" and subtract it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is nearly the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs., 8yrs., 12yrs. etc., and again after 33yrs., 37yrs., 41yrs., 45yrs., 49yrs., 53yrs. etc.

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon	*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
° '		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
0 0	**Ketu**	7	0	0	**SUN**	4	6	0	**MARS**	3	6	0	**JUPITER**	4	0	0
0 20		6	9	27		4	4	6		3	3	27		3	7	6
0 40		6	7	24		4	2	12		3	1	24		3	2	12
1 0		6	5	21		4	0	18		2	11	21		2	9	18
1 20		6	3	18		3	10	24		2	9	18		2	4	24
1 40		6	1	15		3	9	0		2	7	15		2	0	0
2 0		5	11	12		3	7	6		2	5	12		1	7	6
2 20		5	9	9		3	5	12		2	3	9		1	2	12
2 40		5	7	6		3	3	18		2	1	6		0	9	18
3 0		5	5	3		3	1	24		1	11	3		0	4	24
3 20		5	3	0		3	0	0		1	9	0	**Saturn**	19	0	0
3 40		5	0	27		2	10	6		1	6	27		18	6	9
4 0		4	10	24		2	8	12		1	4	24		18	0	18
4 20		4	8	21		2	6	18		1	2	21		17	6	27
4 40		4	6	18		2	4	24		1	0	18		17	1	6
5 0		4	4	15		2	3	0		0	10	15		16	7	15
5 20		4	2	12		2	1	6		0	8	12		16	1	24
5 40		4	0	9		1	11	12		0	6	9		15	8	3
6 0		3	10	6		1	9	18		0	4	6		15	2	12
6.20		3	8	3		1	7	24		0	2	3		14	8	21
6 40		3	6	0		1	6	0	**Rahu**	18	0	0		14	3	0
7 0		3	3	27		1	4	6		17	6	18		13	9	9
7 20		3	1	24		1	2	12		17	1	6		13	3	18
7 40		2	11	21		1	0	18		16	7	24		12	9	27
8 0		2	9	18		0	10	24		16	2	12		12	4	6
8 20		2	7	15		0	9	0		15	9	0		11	10	15
8 40		2	5	12		0	7	6		15	3	18		11	4	24
9 0		2	3	9		0	5	12		14	10	6		10	11	3
9 20		2	1	6		0	3	18		14	4	24		10	5	12
9 40		1	11	3		0	1	24		13	11	12		9	11	21
10 0		1	9	0	**Moon**	10	0	0		13	6	0		9	6	0
10 20		1	6	27		9	9	0		13	0	18		9	0	9
10 40		1	4	24		9	6	0		12	7	6		8	6	18
11 0		1	2	21		9	3	0		12	1	24		8	0	27
11 20		1	0	18		9	0	0		11	8	12		7	7	6
11 40		0	10	15		8	9	0		11	3	0		7	1	15
12 0		0	8	12		8	6	0		10	9	18		6	7	24
12 20		0	6	9		8	3	0		10	4	6		6	2	3
12 40		0	4	6		8	0	0		9	10	24		5	8	12
13 0		0	2	3		7	9	0		9	5	12		5	2	21
13 20	**Venus**	20	0	0		7	6	0		9	0	0		4	9	0
13 40		19	6	0		7	3	0		8	6	18		4	3	9
14 0		19	0	0		7	0	0		8	1	6		3	9	18
14 20		18	6	0		6	9	0		7	7	24		3	3	27
14 40		18	0	0		6	6	0		7	2	12		2	10	6
15 0		17	6	0		6	3	0		6	9	0		2	4	15
15 20		17	0	0		6	0	0		6	3	18		1	10	24
15 40		16	6	0		5	9	0		5	10	6		1	5	3
16 0		16	0	0		5	6	0		5	4	24		0	11	12
16 20		15	6	0		5	3	0		4	11	12		0	5	21
16 40		15	0	0		5	0	0		4	6	0	**Mercur.**	17	0	0
17 0		14	6	0		4	9	0		4	0	18		16	6	27
17 20		14	0	0		4	6	0		3	7	6		16	1	24
17 40		13	6	0		4	3	0		3	1	24		15	8	24
18 0		13	0	0		4	0	0		2	8	12		15	3	18
18 20		12	6	0		3	9	0		2	3	0		14	10	15
18 40		12	0	0		3	6	0		1	9	18		14	5	12
19 0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimsottari Dasa—contd.

Long. of Moon	*Moon in* Meṣa, Siṃha, Dhanus				*Moon in* Vṛṣa, Kanyā Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkaṭa Vṛscika, Mina			
		y	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
19° 0′	Venus	11	6	0	Moon	3	3	0	Rahu	1	4	6	Merc.	14	0	9
19 20		11	0	0		3	0	0		0	10	24		13	7	6
19 40		10	6	0		2	9	0		0	5	12		13	2	3
20 0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20 20		9	6	0		2	3	0		15	7	6		12	3	27
20 40		9	0	0		2	0	0		15	2	12		11	10	24
21 0		8	6	0		1	9	0		14	9	18		11	5	21
21 20		8	0	0		1	6	0		14	4	24		11	0	18
21 40		7	6	0		1	3	0		14	0	0		10	7	15
22 0		7	0	0		1	0	0		13	7	6		10	2	12
22 20		6	6	0		0	9	0		13	2	12		9	9	9
22 40		6	0	0		0	6	0		12	9	18		9	4	6
23 0		5	6	0		0	3	0		12	4	24		8	11	3
23 20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23 40		4	6	0		6	9	27		11	7	6		8	0	27
24 0		4	0	0		6	7	21		11	2	12		7	7	24
24 20		3	6	0		6	5	21		10	9	18		7	2	21
24 40		3	0	0		6	3	18		10	4	24		6	9	18
25 0		2	6	0		6	1	15		10	0	0		6	4	15
25 20		2	0	0		5	11	12		9	7	6		5	11	12
25 40		1	6	0		5	9	9		9	2	12		5	6	9
26 0		1	0	0		5	7	6		8	9	18		5	1	6
26 20		0	6	0		5	5	3		8	4	21		4	8	3
26 40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27 0		5	10	6		5	0	27		7	7	6		3	9	27
27 20		5	8	12		4	10	24		7	2	12		3	4	24
27 40		5	6	18		4	8	21		6	9	18		2	11	21
28 0		5	4	24		4	6	18		6	4	24		2	6	18
28 20		5	3	0		4	4	15		6	0	0		2	1	15
28 40		5	1	6		4	2	12		5	7	6		1	8	12
29 0		4	11	12		4	0	9		5	2	12		1	3	9
29 20		4	9	18		3	10	6		4	9	18		0	10	6
29 40		4	7	24		3	8	3		4	4	24		0	5	3
30 0		4	6	0		3	6	0		4	0	0		0	0	0

Proportional Parts For Dasa of Planets

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon).

	Ketu (7*y*)		Venus (20*y*)		Sun (6*y*)		Moon (10*y*)		Mars (7*y*)		Rāhu (18*y*)		Jupiter (16*y*)		Saturn 19*y*)		Merc. (17*y*)		
′	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakṣatra	Long.	Vimśottarī Daśā		Nakṣatra	Long.	Vimśottarī Daśā	
	s ° ′		yrs.		s ° ′		yrs
1 Aśvini	0 0 0	Ketu	7	15 Svātī	6 6 40	Rāhu	18
2 Bharaṇī	0 13 20	Venus	20	16 Viśākhā	6 20 0	Jupiter	16
3 Kṛttikā	0 26 40	Sun	6	17 Anurādhā	7 3 20	Saturn	19
4 Rohiṇī	1 10 0	Moon	10	18 Jyeṣṭhā	7 16 40	Mercury	17
5 Mṛgaśiras	1 23 20	Mars	7	19 Mūla	8 0 0	Ketu	7
6 Ārdrā	2 6 40	Rāhu	18	20 Pūrvāṣāḍhā	8 13 20	Venus	20
7 Punarvasu	2 20 0	Jupiter	16	21 Uttarāṣāḍhā	8 26 40	Sun	6
8 Puṣya	3 3 20	Saturn	19	22 Sravaṇa	9 10 0	Moon	10
9 Āśleṣā	3 16 40	Mercury	17	23 Dhaniṣṭhā	9 23 20	Mars	7
10 Maghā	4 0 0	Ketu	7	24 Śatabhiṣaj	10 6 40	Rāhu	18
11 P. Phalgunī	4 13 20	Venus	20	25 P.Bhādrapad	10 20 0	Jupiter	16
12 U. Phalgunī	4 26 40	Sun	6	26 U.Bhādrapad	11 3 20	Saturn	19
13 Hasta	5 10 0	Moon	10	27 Revatī	11 16 40	Mercury	17
14 Citrā	5 23 20	Mars	7	1 Aśvinī	12 0 0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

AYANAMSA

The following tables give the amount of Ayanamsa on 1st January each year, and the increase for 1st of other months. The ayanamsa thus obtained is the mean ayanamsa which may be rendered true by applying the correction depending on the *nirayana* longitude of Rahu.

	°	′	″		°	′	″		°	′	″		°	′	″
1900	22	27	43	1911	22	36	56	1921	22	45	19	1931	22	53	41
1901	22	28	33	1912	22	37	46	1922	22	46	9	1932	22	54	32
1902	22	29	24	1913	22	38	37	1923	22	46	59	1933	22	55	22
1903	22	30	14	1914	22	39	27	1924	22	47	49	1934	22	56	12
1904	22	31	4	1915	22	40	17	1925	22	48	40	1935	22	57	2
1905	22	31	54	1916	22	41	7	1926	22	49	30	1936	22	57	53
1906	22	32	45	1917	22	41	58	1927	22	50	20	1937	22	58	43
1907	22	33	35	1918	22	42	48	1928	22	51	11	1938	22	59	33
1908	22	34	25	1919	22	43	38	1929	22	52	1	1939	23	0	24
1909	22	35	16	1920	22	44	28	1930	22	52	51	1940	23	1	14
1910	22	36	6	1921	22	45	19	1931	22	53	41	1941	23	2	4

Increase for 1st of each month

Jan.	0″	Apr.	13″	July	25″	Oct.	38″
Feb.	4	May	17	Aug.	29	Nov.	42
Mar.	8	June	21	Sept.	34	Dec.	46

Correction by Nirayana Longitude of Rahu

Rahu	*Corr.*	*Rahu*	*Corr.*	*Rahu*	*Corr.*	*Rahu*	*Corr.*
s °	″	s °	″	s °	″	s °	″
11 7	0	2 7	−17	5 7	0	8 7	+17
11 22	− 5	2 22	−16	5 22	+ 5	8 22	+16
0 7	− 9	3 7	−15	6 7	+ 9	9 7	+15
0 22	−12	3 22	−12	6 22	+12	9 22	+12
1 7	−15	4 7	− 9	7 7	+15	10 7	+ 9
1 22	−16	4 22	− 5	7 22	+16	10 22	+ 5
						11 7	0

Table for finding Sun's Motion

Movement of the Sun up to the given moment from the previous Sunday evening (5-30 p.m.) can be found from the following table when the Sun's motion in seven days is known from the Ephemeris.

NOTE : 'a' means 5-30 a.m. I.S.T. and 'p' means 5-30 p.m. I.S.T.

Day of week	Sun's motion in a week					Day of week	Sun's motion in a week				
	6°40′	6°50′	7°0′	7°10′	10′		6°40′	6°50′	7°0′	7°10′	10′
S -p	0° 0′	0° 0′	0° 0′	0° 0′	0′	F -a	4° 17′	4° 24′	4° 30′	4° 36′	6′
M -a	0 29	0 29	0 30	0 31	1	F -p	4 46	4 53	5 0	5 7	7
M -p	0 57	0 59	1 0	1 1	1	St -a	5 14	5 22	5 30	5 38	8
Tu -a	1 26	1 28	1 30	1 32	2	St -p	5 43	5 51	6 0	6 9	9
Tu -p	1 54	1 57	2 0	2 3	3	S -a	6 11	6 21	6 30	6 39	9
W -a	2 23	2 26	2 30	2 34	4	12 hrs.	0 29	0 29	0 30	0 31	1
W -p	2 51	2 56	3 0	3 4	4	6 "	0 14	0 15	0 15	0 15	0
Th -a	3 20	3 25	3 30	3 35	5	3 "	0 7	0 7	0 8	0 8	0
Th -p	3 49	3 54	4 0	4 6	6	2 "	0 5	0 5	0 5	0 5	0

Motion of Moon

Movement of the Moon up to the given moment from the previous evening (5-30 P.M.) can be found when its daily motion is known.

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0	15°30′
h m									
5 30 p.m.	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 56
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 p.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 a.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 49
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 a.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 p.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 p.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Planets

Movement of planets up to the given moment can be found from the following tables when the motion in 7 days or 3 or 4 days is known.

NOTE : 'a' means 5-30 a.m. I.S.T. and 'p' means 5-30 p.m. I.S.T.

	Motion in a week									
	30′	1°	2°	4°	6°	8°	10°	12°	14°	16°
Sun -p	0′	0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′
Mon -a	2	4	0 9	0 17	0 26	0 34	0 43	0 51	1 0	1 9
Mon -p	4	9	0 17	0 34	0 51	1 9	1 26	1 43	2 0	2 17
Tues -a	6	13	0 26	0 51	1 17	1 43	2 9	2 34	3 0	3 26
Tues -p	9	17	0 34	1 9	1 43	2 17	2 51	3 26	4 0	4 34
Wed -a	11	21	0 43	1 26	2 9	2 51	3 34	4 17	5 0	5 43
Wed -p	13	26	0 51	1 43	2 34	3 26	4 17	5 9	6 0	6 51
Thur -a	15	30	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0
Thur -p	17	34	1 9	2 17	3 26	4 34	5 43	6 51	8 0	9 9
Fri -a	19	39	1 17	2 34	3 51	5 9	6 26	7 43	9 0	10 17
Fri -p	21	43	1 26	2 51	4 17	5 43	7 9	8 34	10 0	11 26
Sat -a	24	47	1 34	3 9	4 43	6 17	7 51	9 26	11 0	12 34
Sat -p	26	51	1 43	3 26	5 9	6 51	8 34	10 17	12 0	13 43
Sun -	28	56	1 51	3 43	5 34	7 26	9 17	11 9	13 0	14 51
12*h*	2	4	0 9	0 17	0 26	0 34	0 43	0 51	1 0	1 9
6*h*	1	2	0 5	0 9	0 13	0 17	0 22	0 26	0 30	0 35
3*h*	0	1	0 3	0 5	0 6	0 9	0 11	0 13	0 15	0 18
2*h*	0	0	0 2	0 3	0 4	0 6	0 7	0 9	0 10	0 12

Motion of Mercury

	Motion in 3 days from Sunday to Wednesday									
	15′	30	1°	2°	3°	4°	5°	6°	7°	8°
Sun -p	0′	0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′
Mon -a	2	5	0 10	0 20	0 30	0 40	0 50	1 0	1 10	1 20
Mon -p	5	10	0 20	0 40	1 0	1 20	1 40	2 0	2 20	2 40
Tues -a	7	15	0 30	1 0	1 30	2 0	2 30	3 0	3 30	4 0
Tues -p	10	20	0 40	1 20	2 0	2 40	3 20	4 0	4 40	5 20
Wed -a	12	25	0 50	1 40	2 30	3 20	4 10	5 0	5 50	6 40
12*h*	2	5	0 10	0 20	0 30	0 40	0 50	1 0	1 10	1 20
6*h*	1	2	0 5	0 10	0 15	0 20	0 25	0 30	0 35	0 40
2*h*	0	1	0 2	0 3	0 5	0 7	0 8	0 10	0 12	0 14

	Motion in 4 days from Wednesday to Sunday									
	30′	1°	2°	3°	4°	5°	6°	7°	8°	9°
Wed -p	0′	0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′
Thur -a	4	8	0 15	0 22	0 30	0 38	0 45	0 52	1 0	1 7
Thur -p	7	15	0 30	0 45	1 0	1 15	1 30	1 45	2 0	2 15
Fri -a	11	23	0 45	1 7	1 30	1 53	2 15	2 37	3 0	3 22
Fri -p	15	30	1 0	1 30	2 0	2 30	3 0	3 30	4 0	4 30
Sat -a	19	38	1 15	1 52	2 30	3 8	3 45	4 22	5 0	5 37
Sat -p	22	45	1 30	2 15	3 0	3 45	4 30	5 15	6 0	6 45
Sun -a	26	53	1 45	2 37	3 30	4 23	5 15	6 7	7 0	7 52
12*h*	4	8	0 15	0 22	0 30	0 38	0 45	0 52	1 0	1 7
6*h*	2	4	0 7	0 11	0 15	0 19	0 22	0 26	0 30	0 33
2*h*	0	1	0 2	0 4	0 5	0 6	0 7	0 9	0 10	0 11

Motion of Rahu

Motion of Rahu or the Dragon's head for any date (in the evening) of the month can be found from the following table. This motion is to be subtracted from the longitude of Rahu given for 1st of the month.

Day	Motion		Day	Motion		Day	Motion		Day	Motion		Day	Motion		Day	Motion	
	°	′		°	′		°	′		°	′		°	′		°	′
1	0	0	7	0	19	13	0	38	19	0	57	25	1	16	31	1	35
2	0	3	8	0	22	14	0	41	20	1	0	26	1	19	32	1	38
3	0	6	9	0	25	15	0	44	21	1	4	27	1	23			
4	0	10	10	0	29	16	0	48	22	1	7	28	1	26			
5	0	13	11	0	32	17	0	51	23	1	10	29	1	29	8*h*	0	1
6	0	16	12	0	35	18	0	54	24	1	13	30	1	32	16*h*	0	2

N. B.—Longitude of Ketu or Dragon's tail can easily be found by adding 6 signs to that of Rahu.

Mean longitude of Rahu has been given in this Ephemeris and not the true longitude.

Longitude of Planets at the given time

Example : Find the long. of planets on Oct. 3, 1906, Wednesday at 11-30 P.M. I.S.T. Long. of Sun on 30th Sept.=5^{s} 13° 52′ and its weekly motion=6°53′. Hence movement up to Wednesday 11-30 p.m. is found from the foregoing table as 2°57′+0°15′=3° 12′. This added to the long. for 30th Sept gives the long. of Sun as 5^{s} 17° 4′ *i.e.* the Sun is in Kanya (Virgo) 17 degrees etc.

Long. of Moon on Wednesday the 3rd Oct.=11^{s} 28° 0′. Its daily motion=12° 21′. Hence movement up to 11-30 P.M.=3°5′ (from the table for the motion of Moon). This added to the above moon's position gives the reqd. long. of Moon as 0^{s} 1° 5′ *i.e.* the Moon is in Mesha (Aries) 1 degree and 5 mins.

Long. of Mercury on 30th Sept.=5^{s} 18° 40′, weekly motion=+11° 39′. From the table under motion of planets, the movement up to Wednesday 11-30 P.M. (*i.e.* 5-30 P.M.+6 hrs.) is found as+5° 26′ nearly. This added to the position for 30th Sept. gives the reqd. long.=5^{s} 24° 6′. The longitude of Mercury can also be found from the table under 'Motion of Mercury' as follows: Long. of Mercury on Wednesday next the 3rd Oct. at 5-30 P.M.=5^{s} 23° 45′, and motion in 4 days=+6° 34′. From the foregoing table the movement for 6 hrs. only up to 11-30 P.M. is found as+0° 24′. This gives the long. of Mercury as 5^{s} 24° 9′. The slight discrepancy between the two results will be explained later.

Longitudes of other planets can be found in a similar way.

By Proportional Logarithms

Longitudes of planets can be found very conveniently by the Table of Prop. Log. Take the above example of Moon. The given time is 6*h* 0*m* after 5-30 P.M. and the moon's daily motion is 12° 21′. Prop. log. 6*h* 0*m*=·6021, prop. log. 12° 21′=·2885, adding these two we get ·2906 = prop. log 3° 5′. Hence the movement of Moon is 3° 5′ as before. In this case it is to be remembered that if the given time is between 12 noon and 5-30 p.m., the time interval may be taken as so many hours earlier than 5-30 P.M., and the motion obtained in that case is to be subtracted from the given position of Moon of that date.

Longitude of planets (other than the moon) can be found with the help of Prop. log.—Table I, and Table II. In this case the log. of weekly motion is to be taken from Table I and the log. of the time interval from Table II, and the result is to be taken from Table I.

In the previous example of Mercury, the prop. log of weekly motion *i.e.* prop. log 11°59′ = ·3139, the prop. log of time, *i.e.* Wednesday 11-30 P.M. = ·3332, adding we get ·6471 = prop. log. 5°25′. Here the movement is found as + 5°25′ which when added to the longitude for previous Sunday gives 5^s 24° 5′. We cannot work with the motion for 3 days or 4 days when using these tables of proportional logarithms.

If we desire to work out the longitudes more correctly, a correction for second differences is to be applied to the longitudes already obtained, in the way described below.

Interpolation

We have shown above how to find the longitudes of planets by simple proportion. The longitudes thus found, though fairly correct for our ordinary purpose, are not strictly accurate. When a more precise result is required, the following correction should be applied to the longitude of the planet already obtained by the rule of proportion.

Suppose *a*, *b*, *c*, *d* represent four successive positions of a planet at equal time-interval and *l*, *m*, *n* be the motions during the three intervals, as indicated below :—

$$\begin{array}{l} a \\ \quad l \\ b \\ \quad m \\ c \\ \quad n \\ d \end{array}$$

We require the true position of the planet after time '*t*' from the position *b* and let it be represented by *A*.

Then $A = b + mt + \dfrac{t(t-1)}{2} \times (m-l)$

or, $A = b + mt + \dfrac{t(t-1)}{2} \times \dfrac{(n-l)}{2}$

The part '$b+mt$' is obtained by simple proportion and the remaining part is to be determined by the rule of interpolation.

METHOD OF WORKING

Moon : Find the long. of moon for the given moment by simple proportion as shown before. To this long. apply the following correction. Let '*m*' be moon's daily motion for that day and '*l*' the motion for the previous day. Take '$m-l$' and call it 'difference of motion' or take $\dfrac{n-l}{2}$ and call it double 'difference of motion'. It is more correct to take the latter which is actually the average difference of motion, but in ordinary cases the former *viz.* '$m-l$' or '$n-m$' will do. If the difference of motion is negative, take its value with the negative sign.

Multiply the 'difference of motion' by the co-efficient from the following table for the given hour of the day, and apply it to the longitude already obtained.

Correction = diff. of motion × co-efficient.

Co-efficient for Moon

I.S.T.	Co-effic.	I.S.T.	Co-effic.	I.S.T.	Co-effic.	I.S.T.	Co-effic.
5 30 P.M.	−·000	11 30 P.M.	−·094	5 30 A.M.	−·125	11 30 A.M.	−·094
6 0	·010	0 0 A.M.	·099	6 0	·125	12 0	·088
6 30	·020	0 30	·103	6 30	·124	12 30 P.M.	·082
7 0	·029	1 0	·108	7 0	·123	1 0	·076
7 30	·038	1 30	·111	7 30	·122	1 30	·069
8 0	·047	2 0	·114	8 0	·120	2 0	·062
8 30	·055	2 30	·117	8 30	·117	2 30	·055
9 0	·062	3 0	·120	9 0	·114	3 0	·047
9 30	·069	3 30	·122	9 30	·111	3 30	·038
10 0	·076	4 0	·123	10 0	·108	4 0	·029
10 30	·082	4 30	·124	10 30	·103	4 30	·020
11 0	·088	5 0	·125	11 0	·099	5 0	·010
11 30 P.M.	−·094	5 30 A.M.	−·125	11 30 A.M.	−·094	5 30 P.M.	−·000

Example :—In the above example of Moon its daily motion = 12° 21′ = m, motion on previous day = 12°34′ = l, motion on the following day = 12°11′ = n, Now $m-l=-13$ and $\frac{1}{2}(n-l)=-11{\cdot}5'$. Taking either of these two as the 'difference of motion' and −·094 as the co-efficient for 11·30 p.m., we get the correction as +1′. This applied to the long. of moon already found gives the correct value of long. as 0s 1° 6′.

OTHER PLANETS

The method of working here is the same as in the case of the moon. In the case of planets the difference or the average difference of weekly motion is to be taken, which is to be multiplied by the co-efficient given below, and to be applied to the longitude already found. The difference of motion' in this case is the weekly motion from Sunday to next Sunday *minus* the motion for the previous week. When applying this correction to Mercury, we are to find the long. of Mercury by the weekly motion from Sunday to Sunday and not by the motion for 3 or 4 days.

Correction = diff. of motion × co-efficient.

Co-efficient for Sun and Planets

	Co-effic		Co-effic.		Co-effic.		Co-effic.
Sun −p	−·000	Tues −p	−·102	Thur −p	−·122	Sat −p	−·061
Mon −a	·038	Wed −a	·115	Fri −a	·115	Sun −a	·038
Mon −p	·061	Wed −p	·122	Fri −p	·102	Sun −p	−·000
Tues. −a	−·084	Thur −a	·125	Sat. −a	·084		

Example :—In the above case of Mercury, weekly motion = +11°39′ = m, motion in previous week = +12°23′ = l, ∴ $m-l=44'$, and the co-efficient for Wed.−p.m. = −·122. Multiplying we get the correction as +5′. Hence the true long. = 5s 24° 5′ + 5′ = 5s 24° 10′.

TRUE NODE

The longitude of *Rahu* given in this book is the nirayana longitude of mean lunar node. As in the case of the Sun and the Moon, the Node has also got the mean position as well as the true position, the greatest difference between the two being about 1¾ degrees. In view of the fact that we are concerned only with the true or apparent position in case of all the planets, it seems desirable that the *True Rahu* should be used in casting a horoscope.

The principal terms of correction that are required to be applied to the longitude of mean Rahu, as given in this book and also in Part I of this series of Condensed Ephemeris, to obtain the corresponding longitude of true Rahu are given in the following two tables. These corrections would, however, give only an approximate position of true node. For a more precise position, some small corrections of short period terms are necessary, which are not given here.

The latitude of Moon becomes zero only when it comes in conjunction with or in opposition to the true Rahu.

TABLE A

Argument : Sun *minus* Mean Rahu

When the value of the argument exceeds 180°, subtract 180° from it and enter the table.

Arg.	Correction	Arg.	Arg.	Correction	Arg.	Arg.	Correction	Arg.
0°	+ 0′ −	180°	30°	+85′ −	150°	60°	+85′ −	120°
3	10	177	33	90	147	63	79	117
6	20	174	36	93	144	66	73	114
9	30	171	39	96	141	69	66	111
12	40	168	42	98	138	72	58	108
15	49	165	45	98	135	75	49	105
18	58	162	48	98	132	78	40	102
21	66	159	51	96	129	81	30	99
24	73	156	54	93	126	84	20	96
27	79	153	57	90	123	87	10	93
30	+85 −	150	60	+85 −	120	90	+ 0 −	90

TABLE B

Correction according to Date

Jan.	3	−0′	Apr.	11	−9′	July	17	+2′	Oct.	22	+9′
	15	2		23	9		29	4	Nov.	3	8
	27	4	May	5	8	Aug.	10	5		16	7
Feb.	9	5		17	7		22	7		28	5
	21	7		29	5	Sept.	4	8	Dec.	10	4
Mar.	5	8	June	10	4		16	9		22	2
	17	9		23	−2		28	9	Jan.	3	+0
	29	9	July	5	0	Oct.	10	9			
Apr.	11	−9		17	+2		22	+9			

Example of True Rahu

To calculate the longitude of True Rahu on 1st Februaay, 1941 from the given mean longitude for the same date.

On 1st February, 1941...True Sun (p. 84) = 9s 19° 14′
Mean Rahu (p. 85) = 5 11 28

∴ Arg. : Sun − Rahu = 4s 7° 46′ = 127° 46′

From Table A : For 127° 46′, we get correction = −95′
" " B : For Feb. 1, " " − 4′
∴ Total correction = −99′ = −1° 39′

∴ True Rahu = Mean Rahu + Correction = 5s 11° 28′ − 1° 39′ = 5s 9° 49′

Stationary Points

The date and time when the planet becomes retrograde or direct can be worked out utilising the motions obtained under the section on interpolation (p. 104). For this purpose take only three consecutive positions of the planet given at equal intervals (in our case 7 days) *a*, *b* and *c* before and after the estimated date of retrogression or direction, and find the two motions *l* and *m*. The motion *l* corresponds to the date and time midway between those for which *a* and *b* are given (*i.e*, Thursday 5-30 A.M. in this case). Similarly *m* is for the moment midway between *b* and *c*. When the motion *l* is positive and *m* is negative the planet is becoming retrograde, and when the first motion is negative and the Second one is positive it is becoming direct at a time between the above midpoints. The actual stationary point is that moment when the calculated value of the motion vanishes. The dates on which the planets become retrograde or direct are however given at the botton of the pages of Ephemeris.

For convenience let us take *l* and *m* without their signs, *i. e.* consider them both positive. Then the moment of stationary point is :—

Date and time for which *a* is given $+ 3d\ 12h + \frac{l}{l+m} \times 7$ days.

or Thursday 5-30 A.M. (after *a*) $+ \frac{l}{l+m} \times 7$ days.

Example : **Retrogression of Mercury in February, 1941.**

	Long.	Motion
Feb. 9 17*h* 30*m*	10s 15° 23′ (=*a*)	+4°57′ (*l*)=297′
16 ,,	10 20 20 (=*b*)	−2°50′ (*m*)=170′
23 ,,	10 17 30 (=*c*)	467′

The planet is becoming retrograde at

$$\text{Feb. 9. } 17h\ 30m + 3d\ 12h + \frac{297}{467} \times 7 \text{ days.}$$

$$= \text{Feb. 13, } 5h\ 30m + 4d\ 15h = \text{Feb. 17, } 20h \text{ I.S.T.}$$

HELIACAL RISING AND SETTING

The planets set heliacally a few days before conjunction with the Sun and similarly rise some days after conjunctions. This phenomena known as combustion of planets occurs when the planet attains the following degrees of difference from the Sun.

Mercury and Venus rise and set both in the West (western horizon) and in the East (eastern horizon). When Direct they set in the East and rise in the West, and when Retrograde in the reverse directions. But the planets Mars, Jupiter and Suturn always set in he West and rise in the East.

Degrees of difference from Sun

		West			East	
		March	Sept.		March	Sept.
Mercury	R or S	11°	15°	R or S	15°	11°
Venus	R or S	6	9	R or S	9	6
Mars	S	14	20	R	20	14
Jupiter	S	9	13	R	13	9
Saturn	S	12	18	R	18	12

N.B.—The above degrees vary also according to the latitude of the place of observation. The figures given above are for 23° North latitude.

New Moon, Full Moon and Sun's Transit into Nirayana Signs (Rasis)

(Time in I.S.T. reckoned from 5-30 A.M. to h 29-29 i.e. 5-29 A.M. next day morning but included in the same date.)

The Sun's transit times given below relate to the moment of Sun's entry into different *Rasis* starting from Makara in January as indicated below. The moment of New Moon *(Amavasya)* marks the beginning of *Sukladi* (i.e. Mukhaya Māna) lunar month, the New Moon that occurs after the Sun's transit into Makara and before the next transit into Kumbha being the lunar month of Māgha and so on. When however two New Moons occur between the two transit times, the lunar months starting from both the new moon endings get the same name, but the first one is termed as *Mala* or *Adhika* and the second one as *Suddha* or *Nija*. In this system the months are divided into *Sukla* and *Krishna* halves, the latter starting from the following Full Moon.

In case of *Krishnadi* system (Gauna Māna), the month of the same name start from the moment of full Moon (*Purnima*) that precedes the New Moon in question, i.e. about 15 days earlier, and the months are divided into *Vadi* and *Sudi* halves.

The transit times given are based on modern nirayana calculations. Those of Surya-Siddhanta calculations can however be obtained by applying corrections which are also given below. From the transit times the beginning dates of solar months of regional calendars can be determined by the rule given on page ix of Advance Ephemeris

The *mala* or intercalary months have been indicated in the body of the Ephemeris by figures in *italics*, which are based on the old school Panchangs following Surya-Siddhanta calculation. The intercalary months derivable from figures of the table below are based on modern calculations, and as such they may sometimes differ from those indicated in the Ephemeris. Such intercalary months are stated at the top of the year concerned.

Transit occurring on		Sun's entry into Rasi	Lunar month that starts from the new moon following the transit time	Correction to transit time to get S.S. calculation	
				1880	1940
				h	h
Jan.	12-14	Makara	Magha	−2·2	+ 1.2
Feb.	10-12	Kumbha	Phalguna	—4·4	− 1.0
Mar.	12-14	Mina	Chaitra	−5.6	− 2.2
Apr.	11-13	Mesha	Vaisakha	−5.9	− 2·5
May	12-14	Vrisba	Jyaistha	−4.4	− 1.0
June	12-14	Mithuna	Asadha	−0.9	+ 2·5
July	14-16	Karkata	Sravana	+3.8	+ 7.2
Aug.	14-16	Simha	Bhadrapada	+6·7	+10 1
Sept.	14-16	Kanya	Asvina	+7.1	+10·5
Oct.	15-17	Tula	Kartika	+5.7	+ 9·1
Nov.	14-16	Vriscika	Margasirsa	+3.3	+ 6·7
Dec.	13-15	Dhanus	Pausa	+0·7	+ 4 1

New Moon, Full moon and Sun's Transit

Month	Transit	New Moon	Full Moon
1878	d h	d h m	d h m
Jan.	12 16·3	3 19 33	19 5 41
Feb.	10 29·3	2 13 47	17 16 46
Mar.	12 26·2	4 08 48	18 26 36
Apr.	12 10·8	2 26 45	17 11 27
May	13 7·7	2 18 21	16 20 02
June	13 14·3	1 07 18	14 29 21
"	—	30 18 01	...
July	14 25·2	29 27 10	14 16 25
Aug.	15 9·6	28 11 29	13 05 47
Sept.	15 9·5	26 19 40	11 21 20
Oct.	15 21·4	25 28 29	11 14 24
Nov.	14 21·2	24 14 40	10 08 04
Dec.	14 11·8	23 26 55	9 25 21
1879		Asvina	
Jan.	12 22·5	22 17 21	8 17 18
Feb.	11 11·4	21 09 33	7 07 11
Mar.	13 8·4	22 26 34	8 18 39
Apr.	12 16·9	21 19 25	6 27 54
May	13 13·8	21 11 20	6 11 42
June	13 20·5	19 25 50	4 19 06
July	15 7·4	19 14 36	3 27 08
Aug.	15 15·8	17 25 41	2 12 42
"	—	...	31 24 28
Sept.	15 15·7	16 11 26	30 14 47
Oct.	15 27·6	15 20 39	30 07 39
Nov.	14 27·3	14 06 08	28 26 28
Dec.	14 17·9	13 16 34	28 21 46
1880			
Jan.	12 28·6	11 28 10	27 15 43
Feb.	11 17·6	10 16 48	26 06 52
Mar.	12 14·5	11 06 17	26 19 53
Apr.	11 23·1	9 20 37	24 28 21
May	12 20·0	9 11 46	24 12 08
June	12 26·6	7 27 25	22 19 15
July	14 13·5	7 18 51	21 26 32
Aug.	14 21·9	6 09 19	20 10 49
Sept.	14 21·8	4 22 22	18 21 00
Oct.	15 9·7	4 10 13	18 09 57
Nov.	14 9·5	2 21 25	16 26 09
Dec.	13 24·1	2 08 27	16 21 07
"	—	31 19 26	...
1881			
Jan.	12 10·8	30 06 18	15 17 10
Feb.	10 23·8	28 17 02	14 11 54
Mar.	12 20·7	29 28 02	15 28 06
Apr.	11 29·2	28 15 55	14 17 20
May	12 26·1	27 29 06	13 27 54
June	13 8·8	26 19 34	12 12 27
July.	14 19·7	26 10 50	11 19 44
Aug.	14 28·1	24 26 16	9 26 37
Sept.	14 28·0	23 17 25	8 10 09
Oct.	15 15·9	23 08 01	7 19 29
Nov.	14 15·6	21 21 51	6 07 33
Dec.	14 6·2	21 10 37	5 22 44
		Sravana	
1882	d h	d h m	d h m
Jan.	12 16·9	19 22 05	4 16 29
Feb.	11 5·9	18 08 20	3 11 28
Mar.	12 26·3	19 17 47	5 06 10
Apr.	12 11·4	17 27 09	3 23 17
May	13 8·3	17 13 03	3 14 01
June	13 14·9	15 24 03	1 26 04
July	14 25·8	15 12 32	1 11 39
"	—	...	30 19 32
Aug.	15 10·2	13 26 41	28 26 50
Sept.	15 10·1	12 18 29	27 10 40
Oct.	15 22·0	12 11 32	26 20 04
Nov.	14 21·8	10 28 50	25 07 33
Dec.	14 12·4	10 21 08	24 21 12
1883			
Jan.	12 23·1	9 11 29	23 12 45
Feb.	11 12·0	7 23 40	22 05 48
Mar.	13 9·0	9 10 01	23 23 35
Apr.	12 17·5	7 19 06	22 16 57
May	13 14·4	6 27 28	22 08 42
June	13 21·1	5 11 42	20 22 02
July	15 8·0	4 20 34	20 09 01
Aug.	15 16·4	3 06 56	18 18 24
Sept.	15 16·3	1 19 44	16 27 11
Oct.	15 28·2	1 11 24	16 12 15
"	—	30 29 27	...
Nov.	14 27·9	29 24 25	14 22 07
Dec.	14 18·5	29 18 30	14 08 58
1884			
Jan.	12 29·2	28 10 31	12 20 57
Feb.	11 18·2	26 24 05	11 10 18
Mar.	12 15·1	27 11 17	11 25 10
Apr.	11 23·7	25 20 27	10 17 14
May	12 20·6	24 28 07	10 09 37
June	12 27·2	23 11 03	8 25 19
July	14 14·1	22 18 24	8 15 41
Aug.	14 22·5	20 27 24	6 28 36
Sept.	14 22·4	19 15 07	5 16 26
Oct.	15 10·3	19 06 01	4 27 30
Nov.	14 10·1	17 23 42	3 14 07
Dec.	13 24·7	17 18 54	2 24 30
1885		Jyaistha	
Jan.	12 11·4	16 14 07	1 10 56
"	—	...	30 21 49
Feb.	10 24·4	15 07 51	...
Mar.	12 21·3	16 23 07	1 09 30
"	—	...	30 22 10
Apr.	12 5·8	15 11 22	29 11 44
May	12 26·7	14 20 47	28 26 01
June	13 9·4	12 28 12	27 16 48
July	14 20·3	12 10 46	27 07 53
Aug.	14 28·7	10 17 44	25 23 55
Sept.	14 28·6	8 26 13	24 13 24
Oct.	15 16·5	8 13 01	23 26 52
Nov.	14 16·2	6 26 32	23 15 09
Dec.	14 6·8	6 18 46	21 26 29

New Moon, Full Moon and Sun's Transit

Month	Transit		New Moon			Full Moon		
	d	h	d	h	m	d	h	m
1886								
Jan.	12	17·5	5	13	13	20	13	14
Feb.	11	6·5	4	8	44	18	23	44
Mar.	12	27·4	5	27	34	20	10	6
Apr.	12	12·0	4	20	0	18	20	29
May	13	8·9	4	9	12	18	7	17
June	13	15·5	2	19	25	16	19	9
July	14	26·4	1	27	37	16	8	39
"	—		31	10	55		...	
Aug.	15	10·8	29	18	24	14	23	54
Sept.	15	10·7	27	26	49	13	16	20
Oct.	15	22·6	27	12	45	13	8	54
Nov.	14	22·4	25	24	49	11	24	36
Dec.	14	13 0	25	15	25	11	15	0
1887								
Jan.	12	23·7	24	8	31	9	28	2
Feb.	11	12·6	22	27	10	8	15	44
Mar.	13	9·6	24	24	40	9	26	3
Apr.	12	18·1	23	14	23	8	11	8
May	13	15·0	22	28	36	7	19	31
June	13	21·7	21	16	23	5	28	9
July	15	8·6	20	26	20	5	14	4
Aug.	15	17·0	19	11	8	3	26	10
Sept.	15	16·9	17	19	29	2	16	43
Oct.	15	28·8	16	28	5	2	9	17
"	—			...		31	27	1
Nov.	14	28·5	15	13	39	30	20	50
Dec.	14	19·1	14	24	51	30	13	44
1888			Chaitra					
Jan.	13	5·8	13	14	9	28	28	49
Feb.	11	18·8	11	29	22	27	17	27
Mar.	12	15·7	12	21	51	27	27	37
Apr.	11	24·3	11	14	38	26	11	51
May	12	21·2	11	6	53	25	19	10
June	12	27·8	9	22	3	23	26	38
July	14	14·7	9	11	47	23	11	15
Aug.	14	23·1	7	23	51	21	21	50
Sept.	14	23·0	6	10	26	20	10	54
Oct.	15	10 9	5	20	4	19	26	39
Nov.	14	10·7	4	5	33	18	20	5
Dec.	13	25·3	3	15	36	18	16	11
1889								
Jan.	12	12·0	1	26	38	17	11	7
"	—		31	14	40		...	
Feb.	10	25·0		...		15	27	37
Mar.	12	21 9	1	27	30	17	17	17
"	—		31	17	7		...	
Apr.	12	6·4	30	7	35	15	27	48
May	12	27·3	29	22	49	15	12	12
June	13	10·0	28	14	24	13	19	28
July	14	20 9	28	5	31	12	26	32
Aug.	14	29·3	26	19	30	11	10	12
Sept.	14	29·2	25	8	11	9	19	22
Oct.	15	17·1	24	19	56	9	6	55
Nov.	14	16·8	23	7	13	7	21	35
Dec.	14	7·4	22	18	20	7	15	22

Month	Transit		New Moon			Full Moon		
			Bhadra					
1890	d	h	d	h	m	d	h	m
Jan.	12	18·1	20	29	19	6	11	6
Feb.	11	7·1	19	15	58	5	6	43
Mar.	12	28·0	20	26	32	6	24	18
Apr	12	12·6	19	13	36	5	14	54
May	13	9·5	18	25	49	4	26	39
June	13	16·1	17	15	28	3	12	4
July	14	27·0	17	6	20	2	19	53
"	—			...		31	26	54
Aug.	15	11·4	15	21	50	30	10	5
Sept.	15	11·3	14	13	23	28	18	30
Oct.	15	23·2	13	28	34	27	29	12
Nov.	14	28·0	12	19	7	26	18	53
Dec.	14	13·6	12	8	41	26	11	27
1891								
Jan.	12	24·3	10	20	55	25	5	55
Feb.	11	13·2	9	7	42	23	24	49
Mar.	13	10·2	10	17	20	25	18	41
Apr.	12	18·7	8	26	27	24	10	35
May	13	15·6	8	11	46	23	23	56
June	13	22·3	6	21	56	22	10	42
July	15	9·2	6	9	29	21	19	24
Aug.	15	17·6	4	22	42	19	26	59
Sept.	15	17·5	3	13	46	18	10	34
Oct.	15	29·4	3	6	28	17	19	15
Nov.	14	29·1	1	24	3	16	5	46
Dec.	14	19·7	1	17	16	15	18	22
"	—		31	8	50		...	
1892								
Jan.	13	6·4	29	22	8	14	8	57
Feb.	11	19·4	28	9	17	12	25	8
Mar.	12	16·3	28	18	48	13	18	25
Apr.	11	24·9	26	27	17	12	11	56
May	12	21·8	26	11	19	11	28	28
June	12	28·4	24	19	37	10	19	1
July	14	15·3	23	29	0	10	7	13
Aug.	14	23 7	22	16	29	8	17	27
Sept.	14	23·6	21	6	46	6	26	38
Oct.	15	11·5	20	23	54	6	11	42
Nov.	14	11·3	19	18	49	4	21	19
Dec.	13	25·9	19	13	43	4	7	47
1893			Asadha					
Jan	12	12·6	18	6	57	2	19	11
Feb.	10	25·6	16	21	47	1	7	41
Mar.	12	22·5	18	10	3	2	21	33
Apr.	12	7·0	16	20	5	1	12	47
"	—			...		30	28	53
May	12	27·9	15	28	17	30	20	52
June	13	10·6	14	11	21	29	11	55
July	14	21·5	13	18	18	28	25	39
Aug.	15	5·9	11	26	18	27	14	13
Sept.	15	5·8	10	12	35	25	25	53
Oct.	15	17·7	9	25	57	25	12	58
Nov.	14	17·4	8	18	27	23	23	39
Dec.	14	8·0	8	13	10	23	10	6

New Moon, Full Moon and Sun's Transit

Month	Transit	New Moon	Full Moon
1894	d h	d h m	d h m
Jan.	12 18·8	7 8 37	21 20 41
Feb.	11 7·8	5 27 15	20 7 47
Mar.	12 28·7	7 19 48	21 19 41
Apr.	12 13·3	6 9 29	20 8 31
May	13 10·2	5 20 12	19 22 13
June	13 16·8	3 28 26	18 12 36
July	14 27·7	3 11 15	17 27 32
Aug.	15 12·1	1 17 54	16 18 47
,,	—	30 25 34	...
Sept.	15 12·0	29 11 14	15 9 51
Oct.	15 23·9	28 23 27	14 24 10
Nov.	14 23·7	27 14 24	13 13 18
Dec.	14 14·3	27 7 49	12 25 16
1895			
Jan.	12 25·0	25 26 56	11 12 19
Feb.	11 13·9	24 22 13	9 22 53
Mar.	13 10·9	26 15 55	11 9 7
Apr.	12 19·4	25 6 40	9 19 13
May	13 16·3	24 18 16	8 29 29
June	13 23·0	22 27 21	7 16 30
July	15 9·9	22 11 1	6 28 59
Aug.	15 18·3	20 18 25	5 19 21
Sept.	15 18·2	18 26 25	4 11 25
Oct.	16 6·1	18 11 40	3 28 17
Nov.	15 5·8	16 22 42	2 20 47
Dec.	14 20·4	16 12 0	2 12 8
,,	—	...	31 26 1
1896		Jyaistha	
Jan.	13 7·1	14 27 49	30 14 25
Feb.	11 20·1	13 21 42	28 25 21
Mar.	12 17·0	14 16 18	29 10 50
Apr	11 25·6	13 9 53	27 19 17
May	12 22·5	12 25 16	26 27 26
June	12 29·1	11 14 13	25 12 25
July	14 16·0	10 25 5	24 23 15
Aug.	14 24·4	9 10 32	23 12 35
Sept.	14 24·3	7 19 13	21 28 20
Oct.	15 12·2	6 27 48	21 21 47
Nov.	14 12·0	5 12 57	20 15 54
Dec.	13 26·6	4 23 21	20 9 35
1897			
Jan.	12 13·3	3 11 33	18 25 47
Feb.	10 26·3	1 25 43	17 15 41
Mar.	12 23·2	3 17 26	18 26 58
Apr.	12 7·7	2 9 53	17 11 55
May	12 28 6	1 26 16	16 19 24
,,	—	31 17 56	...
June	13 11·3	30 8 26	14 26 31
July	14 22·2	29 21 27	14 10 22
Aug.	15 6·6	28 8 59	12 19 52
Sept.	15 6·5	26 19 16	11 7 42
Oct.	15 18·4	25 28 58	10 22 12
Nov.	14 18·1	24 14 50	9 15 20
Dec.	14, 8·7	23 25 25	9 10 24

Month	Transit	New Moon	Full Moon
		Asvina	
1898	d. h	d h m	d h m
Jan.	12 19·4	22 12 55	8 5 54
Feb.	11 8·4	20 25 10	6 23 54
Mar.	12 29·3	22 14 7	8 14 59
Apr.	12 13·9	20 27 50	6 26 50
May	13 10·8	20 18 27	6 12 3
June	13 17·4	19 9 49	4 19 41
July	14 28·3	18 25 17	3 26 42
Aug.	15 12·7	17 16 4	2 9 59
,,	—	...	31 18 21
Sept.	15 12·6	16 5 40	29 28 41
Oct.	15 24·5	15 18 7	29 17 48
Nov.	14 24·3	14 5 50	28 10 10
Dec.	14 14·9	13 17 13	27 29 9
1899			
Jan.	12 25·6	11 28 20	26 25 4
Feb.	11 14·5	10 15 2	25 19 46
Mar.	13 11·5	11 25 23	27 11 48
Apr.	12 20·0	10 11 51	25 24 51
May	13 16 9	9 23 9	25 11 19
June	13 23·6	8 11 50	23 19 50
July	15 10·5	7 26 1	22 27 12
Aug.	15 18·9	6 17 18	21 10 15
Sept.	15 18·8	5 9 4	19 18 1
Oct.	16 6·7	4 24 44	18 27 34
Nov.	15 6·4	3 15 56	17 15 48
Dec.	14 21·0	3 6 17	17 7 0
1900			
Jan.	13 7·7	1 19 21	15 24 38
,,	—	31 6 52	...
Feb.	11 20·7	...	14 19 20
Mar.	13 17·6	1 16 55	16 13 42
,,	—	30 26 1	...
Apr.	12 26·2	29 10 53	15 6 32
May	13 23·1	28 20 20	14 21 7
June	14 5·7	27 6 57	13 9 9
July	15 16·6	26 19 13	12 18 52
Aug.	15 25·0	25 9 23	10 27 0
Sept.	15 24·9	23 25 27	9 10 36
Oct.	16 12·8	23 18 57	8 18 49
Nov.	15 12·6	22 12 47	6 28 30
Dec.	14 27·2	22 5 31	6 16 8
1901		Sravana	
Jan.	13 13·9	20 20 6	5 5 43
Feb.	11 26·9	19 8 15	3 21 0
Mar.	13 23·8	20 18 23	5 13 34
Apr.	13 8·3	18 27 8	4 6 50
May	13 29·2	18 11 8	3 23 48
June	14 11·9	16 19 3	2 15 23
July	15 22·8	15 27 40	1 28 47
,,	—	...	31 16 4
Aug.	16 7·2	14 13 57	29 25 51
Sept.	16 7·1	12 26 49	28 11 6
Oct.	16 19·0	12 18 41	27 20 36
Nov.	15 18·7	11 13 4	26 6 48
Dec.	15 9·3	11 8 23	25 17 46

New Moon, Full Moon and Sun's Transit

Month	Transit		New Moon			Full Moon		
1902	d	h	d	h	m	d	h	m
Jan.	13	20·0	9	26	44	24	5	36
Feb	12	9·0	8	18	52	22	18	33
Mar.	14	5·9	10	8	20	24	8	51
April	13	14·5	8	19	20	22	24	20
May	14	11·4	7	28	15	22	16	16
June	14	18·0	6	11	40	21	7	47
July	15	28·9	5	18	29	20	22	15
Aug.	16	13·3	3	25	48	19	11	33
Sept.	16	13·2	2	10	49	17	23	53
Oct.	16	25·1	1	22	39	17	11	30
„	—		31	13	43	...		
Nov.	15	24·9	30	7	35	15	22	37
Dec.	15	15·5	29	26	55	15	9	17
1903								
Jan.	13	26·2	28	22	8	13	19	47
Feb	12	15·1	27	15	49	12	6	28
Mar.	14	12·1	29	6	56	13	17	43
April	13	20·6	27	19	1	12	5	48
May	14	17·5	26	28	19	11	18	47
June	14	24·2	25	11	40	10	8	38
July	16	11·1	24	18	16	9	23	13
Aug.	16	19·5	22	25	21	8	14	24
Sept.	16	19·4	21	10	1	7	5	30
Oct.	17	7·3	20	21	0	6	20	53
Nov	16	7·0	19	10	40	5	10	57
Dec.	15	21·6	18	26	53	4	23	43
1904			Jyaistha					
Jan.	14	8·3	17	21	16	3	11	17
Feb.	12	21·3	16	16	35	1	22	3
Mar.	13	18·2	17	11	9	2	8	18
„	—		...			31	18	15
April	12	26·8	15	27	23	29	28	6
May	13	23·7	15	16	28	29	14	24
June	14	6·3	13	26	40	27	25	53
July	15	17·2	13	10	57	27	15	12
Aug.	15	25·6	11	18	23	26	6	32
Sept.	15	25·5	9	26	13	24	23	20
Oct.	16	13·4	9	10	55	24	16	26
Nov.	15	13·2	7	21	7	23	8	41
Dec.	14	27·8	7	9	16	22	23	31
1905								
Jan.	13	14·5	5	23	47	21	12	44
Feb.	11	27·5	4	16	35	19	24	22
Mar.	13	24·4	6	10	49	21	10	25
April	13	8·9	4	28	53	19	19	8
May	14	5·8	4	21	20	18	27	6
June	14	12·5	3	11	27	17	11	21
July	15	23·4	2	23	20	16	21	2
Aug	16	7·8	1	9	32	15	9	1
„	—		30	18	43	...		
Sept	16	7·7	28	27	29	13	23	40
Oct.	16	19·6	28	12	28	13	16	33
Nov.	15	19·3	26	22	17	12	10	41
Dec.	15	9·9	26	9	34	11	28	56

Month	Transit		New Moon			Full Moon		
1906	d	h	d	h	m	d	h	m
Jan.	13	20·6	24	22	39	10	22	7
Feb.	12	9·6	23	13	27	9	13	16
Mar.	14	6·5	24	29	22	10	25	48
April	13	15·1	23	21	37	9	11	42
May.	14	12·0	23	13	30	8	19	40
June	14	18·6	21	28	36	6	26	42
July	16	5·5	21	18	29	6	9	58
Aug	16	13·9	20	6	58	4	18	30
Sept.	16	13·8	18	18	4	2	29	6
Oct.	16	25·7	17	28	13	2	18	18
Nov.	15	25·5	16	14	6	1	10	16
„	—		—			30	28	37
Dec.	15	16·1	15	24	24	30	24	14
1907			Chaitra					
Jan.	13	26·8	14	11	27	29	19	15
Feb.	12	15·7	12	23	13	28	11	53
Mar.	14	12·7	14	11	35	29	25	14
April	13	21·2	12	24	36	28	11	34
May	14	18·1	12	14	29	27	19	48
June	14	24·8	10	29	20	25	26	57
July	16	11·7	10	20	47	25	10	0
Aug.	16	20·1	9	12	7	23	17	45
Sept.	16	20·0	7	26	34	21	27	3
Oct.	17	7·9	7	15	50	21	14	46
Nov.	16	7·6	5	28	9	20	5	34
Dec.	15	22·2	5	15	52	19	23	25
1908								
Jan.	14	8·9	3	27	13	18	19	7
Feb	12	21·9	2	14	6	17	14	36
Mar.	13	18·8	2	24	27	18	7	58
Apr.	12	27·4	1	10	32	16	22	25
„	—		30	21	4	...		
May	13	24·3	30	8	44	16	10	2
June	14	6·9	28	22	1	14	19	25
July	15	17·8	28	12	47	13	27	18
Aug.	15	26·2	26	28	29	12	10	29
Sept.	15	26·1	25	20	30	10	17	53
Oct.	16	14·0	25	12	16	9	26	34
Nov.	15	13·8	23	27	23	8	13	28
Dec.	14	28·4	23	17	19	7	27	14
1909			Sravana					
Jan.	13	15·1	22	5	41	6	19	43
Feb.	11	28·1	20	16	22	5	13	55
Mar.	13	25·0	21	25	42	7	8	26
Apr.	13	9·5	20	10	21	5	25	59
May	14	6·4	19	19	12	5	17	38
June	14	13·1	17	28	53	4	6	55
July	15	24·0	17	16	14	3	17	47
Aug.	16	8·4	15	29	25	1	23	44
„	—		...			31	10	38
Sept.	16	8·3	14	20	39	29	18	36
Oct.	16	20·2	14	13	44	28	27	37
Nov.	15	19·9	13	7	48	27	14	22
Dee.	15	10·5	12	25	29	26	27	0

New Moon, Full Moon and Sun's Transit

Month	Transit		New Moon			Full Moon		
	d	h	d	h	m	d	h	m
1910								
Jan.	13	21·2	11	17	21	25	17	21
Feb.	12	10·2	10	6	43	24	9	6
Mar.	14	7·1	11	17	42	25	25	50
Apr.	13	15·7	9	26	55	24	18	53
May	14	12·6	9	11	3	24	11	9
June	14	19·2	7	18	46	22	25	41
July	16	6·1	6	26	50	22	14	7
Aug.	16	14·5	5	12	6	20	24	44
Sept.	18	14·4	3	23	36	19	10	23
Oct.	16	26·3	3	14	2	18	19	55
Nov.	15	26·1	2	7	26	17	5	55
Dec.	15	16·7	1	26	41	16	16	35
	—		31	21	52	...		
1911								
Jan.	13	27·4	30	15	15	14	27	56
Feb.	12	16·3	...			13	16	7
Mar.	14	13·3	1	6	1	14	29	28
"	—		30	18	8	...		
Apr.	13	21·8	28	27	55	13	20	6
May	14	18·7	28	11	54	13	11	40
June	14	25·4	26	18	50	11	27	21
July	16	12·3	25	25	43	11	18	23
Aug.	16	20·7	24	9	44	10	8	24
Sept.	16	20·6	22	20	7	8	21	26
Oct.	17	8·5	22	9	40	8	9	41
Nov.	16	8·2	20	26	19	6	21	18
Dec.	15	22·8	20	21	10	6	8	22
1912			Asadha					
Jan.	14	9·5	19	16	40	4	18	59
Feb.	12	22·5	18	11	14	2	29	28
Mar.	13	19·4	18	27	39	3	16	12
Apr	12	28·0	17	17	10	1	27	34
May	13	24·9	16	27	44	1	15	49
"	—		...			30	29	0
June	14	7·5	15	11	53	29	19	4
July	15	18·4	14	18	43	29	9	56
Aug	15	26·8	12	25	28	27	25	28
Sept.	15	26·8	11	9	18	26	17	5
Oct.	16	14·6	10	19	10	26	8	0
Nov.	15	14·4	9	7	35	24	21	42
Dec.	14	29·0	8	22	37	24	10	0
1913								
Jan.	13	15·7	7	15	58	22	21	10
Feb.	11	28·7	6	10	52	21	7	33
Mar.	13	25·6	8	5	52	22	17	26
Apr.	13	10·1	6	23	18	20	27	2
May	14	7·0	6	13	54	20	12	48
June	14	13·7	4	25	27	18	23	24
July	15	24·6	4	10	36	18	11	37
Aug	16	9·0	2	18	28	16	25	56
"	—		31	26	8	...		
Sept.	16	8·9	30	10	26	15	18	16
Oct.	16	20·8	29	19	59	15	11	36
Nov	15	20·5	28	7	11	13	28	41
Dec.	15	11·1	27	20	29	13	20	30

Month	Transit		New Moon			Full Moon		
	d	h	d	h	m	d	h	m
1914								
Jan.	13	21·8	26	12	4	12	10	39
Feb.	12	10·8	25	5	32	10	23	5
Mar.	14	7·7	26	23	39	12	9	48
Apr.	13	16·3	25	16	51	10	18	58
May	14	13·2	25	8	5	9	27	0
June	14	19·8	23	21	3	8	10	49
July	16	6·7	23	8	9	7	19	30
Aug.	16	15·1	21	17	56	6	6	11
Sept.	16	15·0	19	27	3	4	19	31
Oct.	16	26·9	19	12	4	4	11	28
Nov.	15	26·7	17	21	32	2	29	19
Dec.	15	17·3	17	8	5	2	23	51
1915			Vaisakha					
Jan.	13	28·0	15	20	12	1	17	51
"	—		...			31	10	12
Feb	12	16·9	14	10	1	...		
Mar.	14	13·9	15	25	12	1	24	3
"	—		...			31	11	7
Apr.	13	22·4	14	17	5	29	19	49
May	14	19·3	14	9	1	28	27	8
June	14	26·0	12	24	27	27	9	57
July	16	12·9	12	15	1	26	17	41
Aug.	16	21·3	10	28	23	24	27	10
Sept.	16	21·2	9	16	22	23	15	5
Oct.	17	9·1	8	27	12	23	5	45
Nov.	16	8·8	7	13	22	21	23	7
Dec.	15	23·4	6	23	33	21	18	22
1916								
Jan.	14	10·1	5	10	16	20	13	59
Feb.	12	23·1	3	21	36	19	7	59
Mar.	13	20·0	4	9	28	19	22	56
Apr.	12	28·6	2	21	51	18	10	37
May	13	25·5	2	10	59	17	19	42
"	—		31	25	7	...		
June	14	8·1	30	16	14	15	27	12
July	15	19·0	30	7	46	15	10	10
Aug.	15	27·4	28	22	55	13	17	30
Sept	15	27·3	27	13	4	11	26	0
Oct.	16	15·2	26	26	7	11	12	31
Nov.	15	15·0	25	14	21	9	25	48
Dec.	15	5·6	24	26	1	9	18	14
1917			Asvina					
Jan.	13	16·3	23	13	10	8	13	12
Feb	11	29·3	21	23	39	7	8	59
Mar	13	26·2	23	9	35	8	27	28
Apr	13	10·7	21	19	31	7	19	19
May	14	7·6	21	6	17	7	8	14
June	14	14·3	19	18	32	5	18	37
July	15	25·2	19	8	30	4	27	11
Aug.	16	9·6	17	23	52	3	10	41
Sept	16	9·5	16	15	58	1	17	58
"	—		...			30	26	1
Oct.	16	21·4	16	8	11	30	11	49
Nov.	15	21·1	14	23	59	28	24	11
Dec.	15	11·7	14	14	47	28	15	21

New Moon, Full Moon and Sun's Transit

Month	Transit		New Moon			Full Moon		
	d	*h*	*d*	*h*	*m*	*d*	*h*	*m*
1918								
Jan.	13	22·4	12	28	6	27	8	44
Feb.	12	11·4	11	15	34	25	27	5
Mar.	14	8·3	12	25	22	27	24	3
Apr.	13	16·9	11	10	5	26	13	35
May	14	13·8	10	18	31	25	28	2
June	14	20·4	8	27	33	24	16	8
July	16	7·3	8	13	52	23	26	5
Aug.	16	15·7	6	25	59	22	10	32
Sept.	16	15·6	5	16	14	20	18	31
Oct.	16	27·5	5	8	36	19	27	5
Nov.	15	27·3	3	26	32	18	13	3
Dec.	15	17·9	3	20	50	17	24	48
1919.								
Jan.	13	28·6	2	13	54	16	14	14
"	—		31	28	37		...	
Feb.	12	17·5		...		14	29	8
Mar.	14	14·5	2	16	41	16	21	12
"	—		31	26	35		...	
Apr.	13	23·0	30	11	0	15	13	56
May	14	19·9	29	18	42	15	6	32
June	14	26·6	27	26	22	13	21	57
July	16	13·5	27	10	52	13	11	32
Aug.	16	21·9	25	21	7	11	23	10
Sept.	16	21·8	24	10	4	10	9	24
Oct.	17	9·7	23	26	9	9	19	9
Nov.	16	9·4	22	20	49	7	29	6
Dec.	15	24·0	22	16	26	7	15	34
1920			Sravana					
Jan.	14	10·7	21	10	58	5	26	35
Feb.	12	23·7	19	27	5	4	14	13
Mar.	13	20·6	20	16	26	4	26	43
Apr.	12	29·2	18	27	13	3	16	25
May	13	26·1	18	11	55	3	7	17
June	14	8·7	16	19	12	1	22	48
July	15	19·6	15	25	56	1	14	11
"	—			...		30	28	49
Aug.	15	28·0	14	9	14	29	18	33
Sept.	15	27·9	12	18	22	28	7	27
Oct.	16	15·8	12	6	21	27	19	39
Nov.	15	15·6	10	21	35	26	7	13
Dec.	15	6·2	10	15	34	25	18	9
1921								
Jan.	13	16·9	9	10	57	23	28	38
Feb.	12	5·9	8	6	7	22	15	2
Mar.	13	26·8	9	23	39	23	25	49
Apr.	13	11·3	8	14	35	22	13	19
May	14	8·2	7	26	31	21	25	45
June	14	14·9	6	11	44	20	15	12
July	15	25·8	5	19	6	20	5	38
Aug.	16	10·2	3	25	47	18	20	58
Sept.	16	10·1	2	9	3	17	12	50
Oct.	16	22·0	1	17	56	16	28	29
"	—		30	29	9		...	
Nov.	15	21·7	29	18	56	15	19	9
Dec.	15	12·3	29	11	9	15	8	20

Month	Transit		New Moon			Full Moon		
	d	*h*	*d*	*h*	*m*	*d*	*h*	*m*
1922								
Jan.	13	23·0	27	29	18	13	20	6
Feb.	12	12·0	26	24	17	12	6	47
Mar.	14	8·9	28	18	34	13	16	44
Apr.	13	17·5	27	10	33	11	26	13
May	14	14·4	26	23	34	11	11	36
June	14	21·0	25	9	50	9	21	28
July	16	7·9	24	18	17	9	8	38
Aug.	16	16·3	22	26	4	7	21	49
Sept.	16	16·2	21	10	8	6	13	17
Oct.	16	28·1	20	19	10	6	6	29
Nov.	15	27·9	19	5	37	4	24	6
Dec.	15	18·5	18	17	50	4	16	53
1923			Jyaistha					
Jan.	13	29·2	17	8	11	3	8	9
Feb.	12	18·1	15	24	37	1	21	24
Mar.	14	15·1	17	18	20	3	8	54
Apr.	13	23·6	16	11	58	1	18	40
"	—			...		30	27	0
May	14	20·5	15	28	8	30	10	37
June	14	27·2	14	18	12	28	18	35
July	16	14·1	14	6	16	27	28	3
Aug.	16	22·5	12	16	47	26	16	0
Sept.	16	22·4	10	26	23	25	6	46
Oct.	17	10·3	10	11	36	24	23	56
Nov.	16	10·0	8	20	58	23	18	28
Dec.	15	24·6	8	7	0	23	13	3
1924								
Jan.	14	11·3	6	18	18	22	6	27
Feb.	12	24·3	5	7	9	20	21	38
Mar.	13	21·2	5	21	28	21	10	0
Apr.	13	5·8	4	12	47	19	19	41
May	13	26·7	3	28	29	18	27	23
June	14	9·3	2	20	4	17	10	12
July	15	20·2	2	11	6	16	17	19
"	—		31	25	13		...	
Aug.	15	28·6	30	14	7	14	25	50
Sept.	15	28·5	28	25	46	13	12	30
Oct.	16	16·4	28	12	27	12	25	51
Nov.	15	16·2	26	22	46	11	18	1
Dec.	15	6·8	26	9	16	11	12	34
1925								
Jan.	13	17·5	24	20	16	10	8	17
Feb.	12	6·5	23	7	42	8	27	19
Mar.	13	27·4	24	19	33	10	19	51
Apr.	13	11·9	23	7	58	9	9	3
May.	14	8·8	22	21	18	8	19	13
June	14	15·5	21	11	46	6	27	19
July	15	26·4	20	27	10	6	10	24
Aug.	16	10·8	19	18	45	4	17	29
Sept.	16	10·7	18	9	43	2	25	23
Oct.	16	22·6	17	23	36	2	10	53
"	—			...		31	22	47
Nov.	15	22·3	16	12	26	30	13	41
Dec.	15	12·9	15	24	35	30	7	32

New Moon, Full moon and Sun's Transit

Month	Transit		New Moon			Full Moon		
			Phalguna					
1926	d	h	d	h	m	d	h	m
Jan	13	23·6	14	12	5	28	27	5
Feb.	12	12·6	12	22	51	27	22	21
Mar.	14	9·5	14	8	51	29	15	31
Apr.	13	18·1	12	18	27	28	5	47
May	14	15·0	11	28	26	27	17	19
June	14	21·6	10	15	38	25	26	43
July	16	8·5	9	28	37	25	10	44
Aug.	16	16·9	8	19	19	23	18	8
Sept.	16	16·8	7	11	15	21	25	49
Oct.	16	28·7	6	27	43	21	10	46
Nov	15	28·5	5	20	5	19	21	52
Dec.	15	19·1	5	11	42	19	11	39
1927								
Jan.	14	5·8	3	25	59	17	27	57
Feb.	12	18·7	2	14	25	16	21	48
Mar.	14	15·7	3	24	55	18	15	54
Apr.	13	24·2	2	9	55	17	9	5
May	14	21·1	1	18	10	16	24	32
"	—		30	26	36		...	
June	14	27·8	29	12	2	15	13	49
July	16	14·7	28	23	6	14	24	52
Aug.	16	23·1	27	12	16	13	10	8
Sept.	16	23·0	25	27	41	11	18	24
Oct.	17	10·9	25	21	7	10	26	45
Nov.	16	10·6	24	15	40	9	12	7
Dec.	15	25·2	24	9	43	8	23	2
1928			Sravana					
Jan.	14	11·9	22	25	50	7	11	38
Feb.	12	24·9	21	15	11	5	25	41
Mar.	13	21·8	21	26	0	6	16	58
Apr.	13	6·4	20	10	55	5	9	8
May	13	27·3	19	18	44	4	25	42
June	14	9·9	17	26	12	3	17	43
July	15	20·8	17	10	6	3	8	19
Aug.	15	29·2	15	19	19	1	21	1
"	—			...		31	8	4
Sept.	15	29·1	14	6	50	29	18	13
Oct.	16	17·0	13	21	26	28	28	14
Nov.	15	16·8	12	15	5	27	14	36
Dec.	15	7·4	12	10	36	26	25	25
1929								
Jan.	13	18·1	11	5	59	25	12	39
Feb.	12	7·1	9	23	26	23	24	29
Mar.	13	28·0	11	14	7	25	13	17
Apr.	13	12·5	9	26	3	23	27	17
May	14	9·4	9	11	37	23	18	20
June	14	16·1	7	19	27	22	9	45
July.	15	27·0	6	26	17	21	24	51
Aug.	16	11·4	5	9	10	20	15	12
Sept.	16	11·3	3	17	18	18	28	46
Oct.	16	23·2	2	27	50	18	17	36
Nov.	15	22·9	1	17	31	17	5	44
Dec.	15	13·5	1	10	19	16	17	8
"	—		30	29	13		...	

Month	Transit		New Moon			Full Moon		
1930	d	h	d	h	m	d	h	m
Jan.	13	24·2	29	24	38	14	27	51
Feb.	12	13·2	28	19	3	13	14	9
Mar.	14	10·1	30	11	16	14	24	29
Apr.	13	18·7	28	24	39	13	11	19
May	14	15·6	28	[illegible]	[illegible]	12	23	0
June	14	22·2	26	19	17	11	11	42
July	16	9·1	25	26	12	10	25	32
Aug.	16	17·5	24	9	7	9	16	28
Sept.	16	17·4	22	17	12	8	8	18
Oct.	16	29·3	21	27	18	7	24	26
Nov	15	29·1	20	15	52	6	15	58
Dec.	15	19·7	20	6	54	6	6	10
1931			Asadba					
Jan.	14	6·4	18	24	6	4	18	45
Feb.	12	19·3	17	18	40	3	5	56
Mar.	14	16·3	19	13	21	4	16	6
Apr.	13	24·8	18	6	30	2	25	35
May	14	21·7	17	20	57	2	10	45
"	—			...		31	20	3
June	14	28·4	16	18	32	30	6	17
July	16	15·3	15	17	50	29	18	18
Aug.	16	23·7	13	25	57	28	8	40
Sept.	16	23·6	12	9	56	26	25	15
Oct.	17	11·5	11	18	37	26	19	5
Nov.	16	11·2	9	28	25	25	12	40
Dec.	15	25·8	9	15	47	24	28	54
1932								
Jan.	14	12·5	7	28	59	23	19	15
Feb.	12	25·5	6	20	16	22	7	38
Mar.	13	22·4	7	13	14	22	18	7
Apr.	13	7·0	6	6	51	20	26	57
May	13	27·9	5	23	41	20	10	39
June	14	10·5	4	14	46	18	18	9
July	15	21·4	3	27	50	17	26	37
Aug.	16	5·8	2	15	12	16	13	12
"	—		31	25	24		...	
Sept.	16	5·7	30	11	0	14	26	36
Oct.	16	17·6	29	20	27	14	18	48
Nov.	15	17·4	28	6	13	13	12	58
Dec.	15	8·0	27	16	53	13	7	51
1933								
Jan.	13	18·7	25	28	50	11	26	7
Feb.	12	7·7	24	18	14	10	18	31
Mar.	13	28·6	26	8	51	12	8	16
Apr.	13	13·1	24	24	9	10	19	8
May	14	10·0	24	15	37	9	27	35
June	14	16·7	23	6	52	8	10	35
July	15	27·6	22	21	33	7	17	21
Aug.	16	12·0	21	11	19	5	25	2
Sept.	16	11·9	19	23	51	4	10	35
Oct.	16	28·8	19	11	15	3	22	38
Nov.	15	23·5	17	21	54	2	13	30
Dec.	15	14·1	17	8	33	2	7	1
"	—			...		31	26	24

New Moon, Full Moon and Sun's Transit

Month	Transit	New Moon	Full Moon
		Vaisakha	
1934	d h	d h m	d h m
Jan.	13 24·8	15 19 8	30 22 2
Feb.	12 13·8	14 6 13	..
Mar.	14 10·7	15 17 39	1 15 56
„	—	...	31 6 44
Apr.	13 19·3	13 29 27	29 18 16
May	14 16·2	13 18 0	28 27 12
June	14 22·8	12 7 41	27 10 38
July	16 9·7	11 22 36	26 17 39
Aug.	16 18·1	10 14 16	24 25 7
Sept.	16 18·0	0 5 51	23 9 49
Oct.	17 5·9	8 20 35	22 20 32
Nov.	16 5·7	7 10 14	24 9 57
Dec.	15 20·3	6 22 55	20 26 24
1935			
Jan.	14 7·1	5 10 50	19 21 14
Feb.	12 20·0	3 21 58	18 16 47
Mar.	14 17·0	5 8 11	20 11 1
Apr.	13 25·5	3 17 41	18 26 40
May	14 22·4	2 27 7	18 15 27
June.	14 29·1	1 43 23	16 25 50
„	—	30 25 15	...
July.	16 16·0	30 15 3	16 10 31
Aug.	16 24·4	29 6 31	14 18 14
Sept.	16 24·3	27 23 0	12 25 49
Oct.	17 12·2	27 15 45	12 10 10
Nov.	16 11·9	26 8 6	10 20 13
Dec.	15 26·5	25 23 20	10 8 41
1936		Bhadra	
Jan.	14 13·2	24 12 49	8 23 45
Feb.	12 26·2	22 24 12	7 16 49
Mar.	13 23·1	23 9 44	8 10 44
Apr.	13 7·7	21 18 3	6 28 16
May.	13 28·6	20 26 6	6 20 31
June.	14 11·2	19 10 45	5 10 52
July.	15 22·1	18 20 49	4 23 5
Aug.	16 6·5	17 8 51	3 9 18
Sept.	16 6·4	15 23 12	1 18 8
„	—	...	30 26 32
Oct.	16 18·3	15 15 50	30 11 29
Nov.	15 18·1	14 10 13	28 21 42
Dec.	15 8·7	13 28 56	28 9 31
1937			
Jan.	13 19·4	12 22 17	26 22 46
Feb.	12 8·4	11 13 5	25 18 13
Mar.	13 29·3	12 25 2	26 28 42
Apr.	13 13·8	11 10 40	25 20 54
May.	14 10·7	10 18 48	25 13 7
June	14 17·4	8 26 14	23 28 30
July.	15 28·3	8 9 43	23 18 16
Aug.	16 12·7	6 18 8	22 6 17
Sept.	16 12·6	4 28 23	20 17 3
Oct.	16 24·5	4 17 28	19 27 18
Nov.	15 24·2	3 9 46	18 13 40
Dec.	15 14·8	2 28 41	17 24 23

Month	Transit	New Moon	Full Moon
1938	d h	d h m	d h m
Jan.	13 25·5	1 24 29	16 11 24
„	—	31 19 5	...
Feb.	12 14·5	...	14 22 45
Mar.	14 11·4	2 11 10	16 10 46
„	—	31 24 23	...
Apr.	13 20·0	30 10 58	14 23 52
May.	14 16·9	29 19 30	14 14 9
June	14 23·5	27 26 40	12 29 18
July.	16 10·4	27 9 24	12 20 35
Aug.	16 18·8	25 16 48	11 11 27
Sept.	16 18·7	23 26 5	9 25 39
Oct.	17 6·6	23 14 12	9 15 7
Nov	16 . 6·4	22 5 35	7 27 54
Dec.	15 21·0	21 23 37	7 15 53
1939		Sravana	
Jan.	14 7·7	20 18 57	5 27 1
Feb.	12 20·6	19 13 58	4 13 25
Mar.	14 17·6	21 7 20	5 23 31
Apr.	13 26·1	19 22 5	4 9 49
May.	14 23·0	19 9 55	3 20 46
June.	15 5·7	17 19 7	2 8 42
July.	16 16·6	16 26 33	1 21 46
„	—	...	31 12 7
Aug.	16 25·0	15 9 23	29 27 39
Sept.	16 24·9	13 16 53	28 19 57
Oct.	17 12·8	12 26 0	28 12 12
Nov.	16 12·5	11 13 25	26 27 25
Dec.	15 27·1	10 27 16	26 16 59
1940			
Jan	14 13·8	9 19 23	24 28 52
Feb.	12 26·8	8 13 15	23 15 25
Mar.	13 23·7	9 7 52	23 25 3
Apr.	13 8·3	7 25 49	22 10 7
May.	13 29·2	7 17 37	21 19 3
June.	14 11·8	6 6 35	19 28 31
July.	15 22·7	5 16 58	19 15 26
Aug.	16 7·1	3 25 40	17 28 33
Sept.	16 7·0	2 9 45	16 20 11
Oct.	16 18·9	1 13 11	16 13 45
„	—	30 27 34	...
Nov.	15 18·7	29 14 13	15 7 54
Dec.	15 9 3	28 26 27	14 25 7
1941			
Jan.	13 20·0	27 16 33	13 16 35
Feb.	12 9·0	26 8 33	12 5 57
Mar.	14 5·9	27 25 44	13 17 17
Apr.	13 14·4	26 18 54	11 26 45
May.	14 11·3	26 10 49	11 10 46
June.	14 18·0	24 24 53	9 18 4
July.	15 28·0	24 13 9	8 25 48
Aug.	16 13·3	22 24 4	7 11 9
Sept.	16 13·2	21 10 8	5 23 7
Oct.	16 25·1	20 19 50	5 14 2
Nov.	15 24·8	19 5 34	4 7 30
Dec.	15 15·4	18 15 49	3 26 21

Proportional Logarithms for finding Planets' places—Tab. I

Min.	DEGREES OR HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1·6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1·6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1·6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1·5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1·5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1·5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1·5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1·5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1·5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1·4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1·4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1·4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1·4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3875	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1.0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Proportional Logarithms—contd

Min.	DEGREES OR HOURS											Min.
	13	14	15	16	17	18	19	20	21	22	23	
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

Example :—Required longitude of moon on 3rd Jan. 1926 at 10-28 P.M. I.S.T. Time from 5-30 P.M. (3rd) is 4*h* 58*m*, log. of which = ·6841. Moon's daily motion is 11°50′, its log = ·3071. Sum of these two = 0·9912 which is log of 2° 27′, the required movement. Hence the required longitude of moon is 4*s* 7° 28′ + 2° 27′ = 4*s* 9° 55′. *i.e. Simha* 9° 55′.

Rule :—Add proportional log. of Moon's daily motion to log of time from 5-30 P.M., I. S. T. and the sum will be the log of the movement required. Add this movement to the given position of planet, if the time be after 5-30 P.M., but subtract if before, and the result will be the planet's true place at the given moment. (If retrograde reverse the process.)

Prop. Logarithms for finding Planets' places—Table II

Log. of time interval from Sunday evening

Indian Standard Time.	Sunday	Monday	Tues-day	Wednes-day	Thurs-day	Friday	Satur-day	Sun-day
h m								
0 0 A.M.		1·4124	·7410	·4889	·3304	·2146	·1232	·0478
0 30		1·3802	7339	4849	3277	2125	1215	0463
1 0		1·3502	7270	4810	3249	2104	1198	0449
1 30		1·3222	7202	4771	3222	2083	1181	0435
2 0		1·2959	7134	4733	3195	2062	1164	0420
2 30		1·2711	7068	4694	3168	2041	1147	0406
3 0		1·2476	7003	4656	3142	2021	1130	0392
3 30		1·2253	6938	4619	3115	2000	1114	0378
4 0		1·2041	6875	4582	3089	1980	1097	0364
4 30		1·1839	·6812	·4545	·3062	·1959	·1080	·0350
5 0 A.M.		1·1646	·6751	·4508	·3036	·1939	·1064	·0336
5 30		1·1461	6690	4472	3010	1919	1047	0322
6 0		1·1284	6630	4436	2985	1899	1031	0308
6 30		1·1114	6571	4400	2959	1879	1015	0294
7 0		1·0950	6513	4364	2933	1859	0998	0280
7 30		1·0792	6455	4329	2908	1839	0982	0267
8 0		1·0639	6398	4294	2883	1819	0966	0253
8 30		1·0492	6342	4260	2858	1800	0950	0239
9 0		1·0350	6287	4225	2833	1780	0934	0225
9 30		1·0212	6233	·4191	·2808	·1761	·0918	·0212
10 0 A.M.		1·0078	·6179	·4158	·2784	·1742	·0902	·0198
10 30		0·9949	6125	4124	2759	1722	0886	0185
11 0		0·9823	6073	4091	2735	1703	0870	0171
11 30		0·9700	6021	4058	2711	1684	0854	0158
12 0 (noon)		0·9581	5969	4025	2687	1665	0839	0145
12 30 P.M.		0·9466	5918	3992	2663	1646	0823	0131
1 0		0·9353	5868	3960	2639	1627	0807	0118
1 30		0·9243	5819	3928	2615	1609	0792	0105
2 0		0·9136	5769	3896	2592	1590	0776	0091
2 30		0·9031	·5721	·3865	·2568	·1571	·0761	·0078
3 0 P.M.		0·8929	·5673	·3833	·2545	·1553	·0746	·0065
3 30		0·8829	5626	3802	2522	1534	0730	0052
4 0		0·8731	5579	3771	2499	1516	0715	0039
4 30		0·8636	5532	3741	2476	1498	0700	0026
5 0		0·8542	5486	3710	2453	1479	0685	0013
5 30	∞	0·8451	5441	3680	2430	1461	0669	·0000
6 0	2·5263	0·8361	5396	3650	2408	1443	0654	
6 30	2·2253	0·8274	5351	3620	2385	1425	0639	
7 0	2·0492	0·8188	5307	3590	2363	1407	0624	
7 30	1·9243	0·8103	·5263	·3561	·2341	·1390	·0610	
8 0 P.M.	1·8274	0·8021	·5220	·3582	·2319	·1372	·0595	
8 30	1·7482	0·7939	5177	3503	2297	1354	0580	
9 0	1·6812	0·7860	5135	3474	2275	1336	0565	
9 30	1·6232	0·7782	5093	3145	2253	1319	0551	
10 0	1·5721	0·7705	5051	3416	2231	1301	0536	
10 30	1·5263	0·7629	5010	3388	2210	1284	0521	
11 0	1·4849	0·7555	4970	3360	2188	1267	0507	
11 30	1·4472	0·7482	4929	3332	2167	1249	0492	
12 0 (mid-night)	1·4124	0·7410	·4889	·3301	·2146	·1232	·0478	

Rule :—Prop. Log. of time from the above Table II is to be added to log. of planet's weekly motion from Table I, and the result will be the log. (table I) of planet's required movement up to the moment from previous Sunday evening.

—*FINIS*—

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ASTRO-RESEARCH BUREAU

CONDENSED EPHEMERIS

OF

PLANETS' POSITIONS

ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

PART III

COVERING ELEVEN YEARS

FROM 1941 TO 1951 A.D.

N. C. LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA

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(Seventh Edition)

BY

NIRMAL CHANDRA LAHIRI, M.A.

Gaṇitācārya, Gaṇitakalānidhi.

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PREFACE

As already stated in Parts I and II of Condensed Ephemeris, this Part III covering eleven years from 1941 to 1951 A.D. completes the series.

The arrangement of this part does not follow the previous two parts. Many changes have been introduced in it with a view to facilitating the use of the book, as enumerated below :—

(i) The longitudes have been given for 5-30 A.M. I.S.T. instead of for 5-30 evening as in the previous issues.

(ii) The longitudes of planets have been given at intervals of 2 days, instead of their weekly or 4-day positions. The longitudes of Moon and Mercury are however given daily.

(iii) Many additional items have been given under each year.

As regards ayanāṁśa, the position has been stated in the preface to Part II of this series As a result of adoption of this revised value of ayanāṁśa uniformly, the longitudes for the years 1941 to 1947 A.D. may in some cases differ by about 1′ from those published in the original ephemerides.

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LOCAL MEAN TIME OF SUNRISE AND SUNSET

[illegible] Digitized by eGangotri

Date	Sunrise					Mid-day	Sunset				
	0°	10°	20°	30°	35°		0°	10°	20°	30°	35°
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	5 59	6 17	6 35	6 56	7 08	12 03	6 07	5 50	5 31	5 10	4 58
8	6 03	6 19	6 37	6 57	7 09	12 07	6 10	5 54	5 36	5 16	5 05
16	6 06	6 22	6 38	6 57	7 08	12 10	6 14	5 58	5 42	5 23.	5 12
24	6 08	6 23	6 38	6 55	7 04	12 12	6 16	6 02	5 47	5 30	5 21
Feb. 1	6 10	6 23	6 36	6 51	6 59	12 14	6 18	6 05	5 52	5 37	5 29
9	6 11	6 21	6 33	6 45	6 53	12 14	6 18	6 07	5 56	5 44	5 36
17	6 11	6 19	6 28	6 38	6 45	12 14	6 18	6 09	6 00	5 50	5 44
25	6 10	6 16	6 23	6 31	6 35	12 13	6 17	6 10	6 03	5 56	5 52
Mar. 5	6 08	6 13	6 17	6 23	6 25	12 12	6 15	6 12	6 07	6 02	5 59
13	6 06	6 09	6 11	6 13	6 14	12 10	6 13	6 11	6 09	6 07	6 06
21	6 04	6 04	6 04	6 03	6 03	12 07	6 11	6 11	6 11	6 12	6 12
29	6 02	5 59	5 57	5 53	5 52	12 05	6 08	6 11	6 14	6 17	6 19
Apr. 6	5 59	5 55	5 50	5 44	5 40	12 03	6 06	6 11	6 16	6 21	6 25
14	5 57	5 50	5 43	5 35	5 30	12 00	6 04	6 11	6 18	6 26	6 31
22	5 55	5 46	5 37	5 26	5 20	11 59	6 02	6 11	6 20	6 31	6 38
30	5 54	5 43	5 32	5 19	5 11	11 57	6 01	6 11	6 23	6 36	6 44
May 8	5 53	5 41	5 27	5 12	5 03	11 56	6 00	6 12	6 26	6 41	6 50
16	5 53	5 39	5 24	5 06	4 56	11 56	6 00	6 14	6 29	6 47	6 57
24	5 53	5 38	5 21	5 02	4 51	11 57	6 00	6 16	6 33	6 52	7 03
June 1	5 54	5 38	5 20	4 59	4 47	11 58	6 01	6 18	6 36	6 56	7 08
9	5 55	5 38	5 20	4 58	4 46	11 59	6 03	6 20	6 39	7 00	7 13
17	5 57	5 39	5 20	4 58	4 45	12 01	6 04	6 22	6 41	7 03	7 16
25	5 59	5 41	5 22	5 00	4 47	12 02	6 06	6 24	6 43	7 05	7 18
July 3	6 01	5 43	5 24	5 03	4 51	12 04	6 08	6 25	6 43	7 05	7 18
11	6 03	5 45	5 27	5 06	4 54	12 05	6 09	6 25	6 43	7 04	7 16
19	6 03	5 47	5 30	5 11	4 59	12 06	6 10	6 25	6 42	7 01	7 13
27	6 03	5 48	5 33	5 15	5 05	12 06	6 10	6 24	6 39	6 57	7 07
Aug 4	6 02	5 50	5 36	5 20	5 11	12 06	6 09	6 22	6 36	6 51	7 00
12	6 02	5 51	5 39	5 25	5 17	12 05	6 08	6 19	6 31	6 44	6 52
20	6 00	5 51	5 41	5 30	5 23	12 03	6 07	6 16	6 25	6 36	6 43
28	5 58	5 51	5 43	5 34	5 29	12 01	6 05	6 12	6 19	6 28	6 33
Sept. 5	5 56	5 50	5 45	5 39	5 35	11 59	6 02	6 06	6 12	6 18	6 22
13	5 53	5 50	5 47	5 43	5 41	11 56	5 59	6 01	6 04	6 08	6 10
21	5 50	5 49	5 48	5 47	5 47	11 53	5 56	5 57	5 58	5 59	5 59
29	5 47	5 49	5 50	5 52	5 53	11 51	5 54	5 52	5 50	5 49	5 48
Oct. 7	5 45	5 48	5 52	5 56	5 59	11 48	5 51	5 47	5 43	5 39	5 36
15	5 43	5 48	5 54	6 01	6 05	11 46	5 49	5 43	5 37	5 30	5 26
23	5 41	5 49	5 58	6 07	6 12	11 44	5 48	5 40	5 31	5 22	5 16
31	5 40	5 50	6 01	6 13	6 20	11 44	5 47	5 37	5 26	5 14	5 07
Nov. 8	5 40	5 52	6 05	6 19	6 27	11 44	5 47	5 35	5 23	5 05	5 00
16	5 41	5 55	6 09	6 26	6 35	11 45	5 48	5 35	5 20	5 04	4 54
21	5 43	5 58	6 11	6 32	6 43	11 47	5 50	5 35	5 19	5 01	4 50
Dec. 2	5 46	6 02	6 19	6 39	6 50	11 49	5 53	5 37	5 20	5 00	4 48
10	5 49	6 06	6 24	6 45	6 57	11 53	5 56	5 39	5 21	5 01	4 49
18	5 53	6 10	6 29	6 50	7 02	11 56	6 00	5 43	5 24	5 03	4 51
26	5 57	6 14	6 33	6 54	7 06	12 00	6 04	5 47	5 28	5 07	4 55
Jan. 3	6 01	6 18	6 36	6 56	7 08	12 04	6 08	5 51	5 33	5 12	5 00

The timings relate to the visibility of the upper limb of the Sun on the horizon, and as such include refraction and limb-corretion amounting to a total of about 3½ mins. (3 mins. for 0° or 10° lat. and 4 mins. for 30° or 35° lat.) For this reason the above times have been obtained by *diminishing* the calculated figures by the above amount for sunrise and *increasing* for sunset.

The L. M. T. of rise and set for intermediate latitudes and dates may be obtained by simple proportion. Thereafter the timings can be converted into I.S.T. by inverse application of the local time correction for the place.

Example of a Foreign City

Date : 14th August 1947, Thursday.
Time : 7-00 p.m. Local Standard Time.
Place : London (England).
Lat. 51° 32′ N. Long. 0° 05′ W.

As the place is in England, it falls in the Time Zone of 0*h* which is the standard time of the country. G.M.T. of the moment is thus the same as the I.S.T. *viz.* h. 19-00 (7-00 p.m.) of 14 Aug. and I.S.T. is in excess of the above by $5^h\ 30^m$ (i.e. I.S.T. is 7-00 p.m. *plus* 5-30=0-30 a.m. of 15 Aug.)

As the place is in the west of Greenwich, the L.M.T. of the moment is less* than G.M.T. by the time-equivalent of the longitude, i.e. by $0^h\ 0^m\ 20^s$ (0° 05′×4=$0^m\ 20^s$). Hence the L.M.T. as obtained from G.M.T. is 7-00 p.m. *minus* 20^s=7-30 p.m. nearly of 14. 8. 47.

So time is 7-00 p.m. of 14 Aug... ......G.M.T. or U.T.
7-00 p.m. „ L.M.T. (for calculation of ascendant)
0-30 a.m. „ 15 Aug. I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for 12*h* noon L.M.T. of 14 Aug. '47 at London is *h* 9-28-54 (p. 76)+54^s (Corr. for London) −1^m 31*s* (Corr. for 1947)=*h* 9-28-17.

∴ Sidereal Time for 7-00 p.m. L.M.T.
=*h* 9-28-17+(*h* 7-0+1^m-9^s)=*h* 16-29-26.

Hence the ascendant for Latitude 51°N32′ is obtained from author's Tables of Ascendants as 9^s 18° 58′−0° 8′ (Corr. for 1947)=9^s-18°-50′ i.e., Makara 18° 50′. From the short table given on Page 80 of the annual ephemeris, it is seen that the ascendant Makara begins on 14 Aug. at 51°N32′ latitude at *h* 16-50+81*m*=6-11 p.m. L.M.T. which confirms the above result.

Planets—To be calculated for 0-30 a.m. I.S.T. of 15.8.47 which moment is *h* 19-00 after 5-30 a.m. I.S.T. of 14:8.47. The Moon is found for this epoch at 2^s 22° 24′+11° 54′=3^s 4° 18′ (Karkata 4° 18′)

Similarly the positions of other planets are also to be obtained for the above hour of I.S.T.

---

*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS

FOR ELEVEN YEARS

FROM 1941 TO 1951 A.D.
„ 1862-63 „ 1872-73 ŚAKA ERA
„ 1997-98 „ 2007-08 SAMVAT ERA
„ 1347-48 „ 1357-58 (B.S.) BENGALI SAN
„ 1116-17 „ 1126-27 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Saṁvat era.
Samvat era „ with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat „ with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era „ on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5; after which the next year of Fusli begins. Hindi months begin from the date after full moon a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are the same as given in author's Advance Ephemeris.

The beginning dates of Saka, Samvat (two kinds), Bengali and Kollam eras and the Barhaspatya Varsa have been given for each year.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant 0*h* U.T. i.e. 0*h* G.M.T. Greenwich mean midnight or 5-30 A.M. Indian Standard Time (I.S.T.) or 5-53-30 A.M. Calcutta local time, which is also the same as 4-51-20 A.M. Bombay local time, and 5-20-59 A.M. Madras local time.

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of two days and those of Moon and Mercury have been given for each day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way : Vaiśākha—1 Jyaiṣṭha—2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6, Kārtika—7, Agrahāyana—8, Pauṣa—9, Māgha—10, Phālguṇa—11 & Chaitra—12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāṅgas* computed on orthodox methods. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e.* *mala* or *adhika māsa*.

The *sudi* half of the month begins when the number of the *tithi* is 1, and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16.. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi:*

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi	and	1	10	Māgha	sudi or sukla.
16	10	Phālguna.	,,	,,	1	11	Phālguna	,,
16	11	Chaitra	,,	,,	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	,,	,,	1	1	Vaisākha	,,
16	1	Jyaistha	,,	,,	1	2	Jyaistha	,,
16	2	Asādha	,,	,,	1	3	Asādha	,,
16	3	Srāvana	,,	,,	1	4	Srāvana	,,
16	4	Bhādra	,,	,,	1	5	Bhādra	,,
16	5	Asvina (N.Y.)	,,	,,	1	6	Asvina	,,
16	6	Kārtika	,,	,,	1	7	Kārtika	,, (new year)
16	7	Agahā.	,,	,,	1	8	Mārga.	,,
16	8	Pāusa	,,	,,	1	9	Pausa	,,

The first figure in the longitude of a planet indicates the sign or *rāsi* of the *nirayana* zodiac, *viz.* 0 means that the planet is in Mesha (Aries), 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc., as shown in the last column of the symbols given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rāsi*.

SYMBOLS

☉—Sun	*Ravi, Sūrya*	♈—Aries	0	*Meṣa*
☽—Moon	*Candra*	♉—Taurus	1	*Vṛṣa*
☿—Mercury	*Budha*	♊—Gemini	2	*Mithuna*
♀—Venus	*Śukra, Bhṛgu*	♋—Cancer	3	*Karkaṭa*
♂—Mars	*Maṅgala, Kuja*	♌—Leo	4	*Siṁha*
♃—Jupiter	*Bṛhaspati, Guru*	♍—Virgo	5	*Kanyā*
♄—Saturn	*Śani*	♎—Libra	6	*Tulā*
♅—Uranus or Herschel	*Indra, Prajāpati*	♏—Scorpio	7	*Vṛścika*
♆—Neptune	*Varuṇa*	♐—Sagittarius	8	*Dhanus*
♇—Pluto	*Rudra, Yama*	♑—Capricornus	9	*Makara.*
☊—Ascending Node or Dragons head	*Rāhv*	♒—Aqurius	10	*Kumbha*
☋—D. Node Dragon's tail	*Ketu*	♓—Pices	11	*Mīna*
⊕—Earth	*Pṛthivī*			

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

Standard time = Local time − 4 (E. Long.—82° 30′) mins. of time
or = Local time + 4 (82° 30′ − E. Long.) mins. of time.

Afterwards the old Railway time, the same as the local time of Madras (5^h 21^m ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. Other changes of timings during the war period and afterwards are noted below :—

				Reduction to I.S.T.
In Calcutta ...	before 1st Oct., 1941	...	Calcutta time	—0*h* 23*m*
In whole of Bengal from	1-10-41 to 14-5-42	...	Bengal time	—1*h* 0*m*
" " "	15-5-42 to 31-8-42	...	I. S. T.	0*h* 0*m*
" " "	1-9-42 to 31-8-47	...	Bengal time	—1*h* 0*m*
In West Bengal since	1st September, 1947	...	I.S.T.	0*h* 0*m*

1-9-42 to 14-10-45, and
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45
Bihar from 12-1-41 to 14-5-42 and again from 1-9-42 ... —1*h* 0*m*
observed Bengal time (otherwise I.S.T) ...
East Pakistan observed Bengal time for civil purposes and Pakistan standard
time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51.
From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30*m*
more than I.S.T. and West Pakistan (now Pakistan) standard time is
30*m* less than I.S.T.

Saka era 1862-63, Samvat 1997-98 (Mar. 28, Oct. 21), B.S. 1347-48 (Apr. 14),
Kollam era 1116-17 (Aug. 16), 15 Vrisba (Mar. 28, Apr. 13)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ চ) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec.29	14	9	8	15	46	8	29	34	9	13	0	9	26	4	10	8	45	10	21	6	11	3	12
Jan. 5	21	9	11	15	6	11	26	54	0	8	42	0	20	36	1	2	40	1	14	59	1	27	34
12	28	9	2	10	28	2	23	40	3	7	10	3	20	53	4	4	47	4	18	47	5	2	51
19	6	10	5	16	57	6	1	3	6	15	9	6	29	12	7	13	13	7	27	9	8	10	58
26	13	10	8	24	37	9	8	1	9	21	10	10	4	2	10	16	35	10	28	53	11	10	57
Feb. 2	20	10	11	22	51	0	4	40	0	16	28	0	28	22	1	10	26	1	22	45	2	5	23
9	27	10	2	18	23	3	1	47	3	15	32	3	29	37	4	13	56	4	28	25	5	12	57
16	4	11	5	27	26	6	11	49	6	26	3	7	10	6	7	23	57	8	7	35	8	21	1
23	11	11	9	4	14	9	17	13	9	29	59	10	12	32	10	24	52	11	7	0	11	19	0
Mar. 2	18	11	0	0	52	0	12	40	0	24	29	1	6	22	1	18	24	2	0	41	2	13	16
9	25	11	2	26	14	3	9	37	3	23	25	4	7	39	4	22	14	5	7	3	5	22	0
16	2	12	6	6	56	6	21	44	7	6	17	7	20	32	8	4	26	8	18	0	9	1	14
23	9	12	9	14	10	9	26	50	10	9	17	10	21	32	11	3	38	11	15	36	11	27	29
30	16	12	0	9	19	0	21	7	1	2	57	1	14	52	1	26	55	2	9	10	2	21	41
Apr. 6	23	12	3	4	33	3	17	48	4	1	30	4	15	39	5	0	13	5	15	8	6	0	17
13	30	12	6	15	31	7	0	39	7	15	32	8	0	4	8	14	10	8	27	49	9	11	2
20	7	1	9	23	53	10	6	23	10	18	38	11	0	42	11	12	38	11	24	29	0	6	17
27	14	1	0	18	6	0	29	56	1	11	51	1	23	51	2	5	59	2	18	17	3	0	49
May 4	21	1	3	13	38	3	26	48	4	10	20	4	24	17	5	8	40	5	23	26	6	8	30
11	28	1	6	23	44	7	8	58	7	24	1	8	8	45	8	23	2	9	6	49	9	20	8
18	4	2	10	3	0	10	15	29	10	27	40	11	9	40	11	21	31	0	3	19	0	15	6
25	11	2	0	26	57	1	8	52	1	20	55	2	3	4	2	15	23	2	28	52	3	10	33
June 1	18	2	3	23	27	4	6	36	4	20	4	5	3	52	5	18	2	6	2	32	6	17	20
8	25	2	7	2	19	7	17	22	8	2	19	8	17	1	9	1	19	9	15	10	9	28	32
15	1	3	10	11	28	10	23	59	11	6	12	11	18	12	0	0	3	0	11	51	0	23	41
22	8	3	1	5	36	1	17	38	1	29	50	2	12	13	2	24	47	3	7	32	3	20	29
29	15	3	4	3	37	4	16	57	5	0	30	5	14	18	5	28	20	6	12	36	6	27	5
July 6	22	3	7	11	43	7	26	23	8	11	0	8	25	25	9	9	31	9	23	15	10	6	35
13	29	3	10	19	30	11	2	2	11	14	17	11	26	19	0	8	12	0	20	2	1	1	54
20	4	4	1	13	53	1	26	2	2	8	23	2	20	59	3	3	49	3	16	54	4	0	12
27	11	4	4	13	42	4	27	22	5	11	11	5	25	9	6	9	14	6	23	24	7	7	39
Aug. 3	18	4	7	21	56	8	6	12	8	20	21	9	4	21	9	18	5	10	1	32	10	14	39
10	25	4	10	27	27	11	9	57	11	22	10	0	4	12	0	16	7	0	27	58	1	9	52
17	32	4	1	21	52	2	4	4	2	16	31	2	29	15	3	12	18	3	25	40	4	9	19
24	7	5	4	23	14	5	7	20	5	21	35	6	5	53	6	20	11	7	4	28	7	18	39
31	14	5	8	2	43	8	16	38	9	0	22	9	13	54	9	27	12	10	10	16	10	23	6
Sept. 7	21	5	11	5	40	11	18	1	0	0	11	0	12	10	0	24	4	1	5	55	1	17	49
14	28	5	1	29	48	2	11	59	2	24	25	3	7	10	3	20	18	4	3	49	4	17	43
21	4	6	5	1	58	5	16	29	6	1	11	6	15	56	7	0	36	7	15	10	7	29	28
28	11	6	8	13	30	8	27	15	9	10	42	9	23	52	10	6	48	10	19	30	11	2	0
Oct. 5	18	6	11	14	19	11	26	29	0	8	31	0	20	27	1	2	20	1	14	10	1	26	3
12	25	6	2	8	1	2	20	9	3	2	31	3	15	11	3	28	15	4	11	44	4	25	40
19	2	7	5	10	3	5	24	48	6	9	50	6	24	59	7	10	5	7	24	59	8	9	34
26	9	7	8	23	44	9	7	30	9	20	51	10	3	50	10	16	31	10	28	58	11	11	12
Nov. 2	16	7	11	23	18	0	5	18	0	17	14	0	29	7	1	10	58	1	22	51	2	4	45
9	23	7	2	16	44	2	28	52	3	11	11	3	23	46	4	6	41	4	20	1	5	3	49
16	30	7	5	18	5	6	2	48	6	17	53	7	3	11	7	18	32	8	3	43	8	18	34
23	7	8	9	2	58	9	16	54	10	0	20	10	13	19	10	25	56	11	8	16	11	20	22
30	14	8	0	2	20	0	14	14	0	26	5	1	7	57	1	19	50	2	1	47	2	13	47
Dec. 7	21	8	2	25	54	3	8	8	3	20	31	4	3	7	4	16	0	4	29	12	5	12	48
14	28	8	5	26	50	6	11	18	6	26	9	7	11	17	7	26	32	8	11	43	8	26	40
21	6	9	9	11	13	9	25	18	10	8	53	10	21	59	11	4	40	11	17	1	11	29	7
28	13	9	0	11	4	0	22	55	1	4	45	1	16	38	1	28	35	2	10	38	2	22	49
Jan. 4	20	9	3	5	7	3	17	35	4	0	12	4	13	0	4	26	1	5	9	17	5	22	50

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Ayanamsa on 1st Jan. : 23° 02′ 08″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month	श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	4 9	0 R14 55	0 12 39	7 4 24	8 17 10	7 20 53	8 11s02	8 12 37
3	6 9	0 14 54	0 12 39	7 5 45	8 19 12	7 23 23	8 14 12	8 15 47
5	7 9	0 14 53	0 12 41	7 7 06	8 21 14	7 25 53	8 17 23	8 18 59
7	9 9	0 14 52	0 12 44	7 8 26	8 23 17	7 28 22	8 20 35	8 22 12
9	11 9	0 D14 51	0 12 47	7 9 47	8 25 19	8 0 52	8 23 49	8 25 27
11	13 9	0 14 52	0 12 51	7 11 08	8 27 21	8 3 22	8 27☉05	8 28 44
13	15 9	0 14 52	0 12 56	7 12 29	8 29 23	8 5 51	9 0 23	9 2 02
15	17 9	0 14 53	0 13 02	7 13 50	9 1 26	8 8 21	9 3 42	9 5 23
17	19 9	0 14 55	0 13 08	7 15 11	9 3 28	8 10 51	9 7 04	9 8 45
19	21 9	0 14 57	0 13 15	7 16 32	9 5 30	8 13 21	9 10 27	9 12 09
21	24 9	0 14 59	0 13 23	7 17 54	9 7 32	8 15 51	9 13 52	9 15 35
23	26 9	0 15 02	0 13 32	7 19 15	9 9 34	8 18 21	9 17 19	9 19 03
25	28 9	0 15 05	0 13 42	7 20 37	9 11 36	8 20 51	9 20 46	9 22 31
27	30 9	0 15 09	0 13 52	7 21 57	9 13 38	8 23 21	9 24r15	9 25 59
29	2 10	0 15 13	0 14 03	7 23 20	9 15 40	8 25 51	9 27 42	9 29 25
31	4 10	0 15 17	0 14 15	7 24 41	9 17 42	8 28 21	10 1 07	10 2 48
Feb. 2	6 10	0 15 22	0 14 27	7 26 03	9 19 44	9 0 50	10 4 28	10 6 05
4	8 10	0 15 28	0 14 40	7 27 25	9 21 46	9 3 20	10 7 41	10 9 14
6	9 10	0 15 33	6 14 54	7 28 47	9 23 47	9 5 50	10 10 43	10 12 08
8	11 10	0 15 39	0 15 08	8 0 08	9 25 49	9 8 20	10 13 31	10 14 47
10	13 10	0 15 46	0 15 23	8 1 30	9 27 50	9 10 50	10 15 57	10 17 00
12	15 10	0 15 53	0 15 39	8 2 52	9 29 51	9 13 20	10 17 57	10 18 45
14	18 10	0 16 00	0 15 55	8 4 15	10 1 53	9 15 50	10 19 24	10 19 54
16	20 10	0 16 08	0 16 11	8 5 37	10 3 54	9 18 20	10 20 14	10 R20 24
18	22 10	0 16 16	0 16 29	8 6 59	10 5 55	9 20 50	10 20 23	10 20 12
20	24 10	0 16 25	0 16 47	8 8 21	10 7 56	9 23 19	10 19 51	10 19s21
22	26 10	0 16 33	0 17 05	8 9 44	10 9 57	9 25 49	10 18 42	10 17 56
24	28 10	0 16 43	0 17 24	8 11 06	10 11 58	9 28 19	10 17 02	10 16 04
26	30 10	0 16 52	0 17 43	8 12 28	10 13 58	10 0 49	10 15☉02	10 13 59
28	2 11	0 17 02	0 18 03	8 13 51	10 15 59	10 3 18	10 12 54	10 11 52
Mar. 2	4 11	0 17 12	0 18 23	8 15 14	10 17 59	10 5 48	10 10 50	10 9 54
4	6 11	0 17 22	0 18 44	8 16 36	10 20 00	10 8 18	10 9 02	10 8 15
6	8 11	0 17 33	0 19 05	8 17 59	10 22 00	10 10 47	10 7 35	10 7 02
8	10 11	0 17 44	0 19 27	8 19 22	10 24 00	10 13 17	10 6r35	10 6 14
10	12 11	0 17 56	0 19 49	8 20 44	10 26 00	10 15 46	10 6 01	10 D5 53
12	14 11	0 18 07	0 20 11	8 22 07	10 28 00	10 18 16	10 5 52	10 5 57
14	16 11	0 18 19	0 20 34	8 23 30	10 29 59	10 20 45	10 6 07	10 6 23
16	18 11	0 18 31	0 20 57	8 24 53	11 1 59	10 23 14	10 6 45	10 7 11
18	21 11	0 18 43	0 21 20	8 26 16	11 3 58	10 25 44	10 7 41	10 8 18
20	23 11	0 18 56	0 21 44	8 27 37	11 5 57	10 28 13	10 8 58	10 9 41
22	25 11	0 19 09	0 22 08	8 29 01	11 7 56	11 0 43	10 10 27	10 11 19
24	27 11	0 19 22	0 22 32	9 0 24	11 9 55	11 3 12	10 12 11	10 13 09
26	29 11	0 19 35	0 22 57	9 1 47	11 11 54	11 5 41	10 14 08	10 15 11
28	1 12	0 19 48	0 23 22	9 3 10	11 13 53	11 8 10	10 16 15	10 17 23
30	2 12	0 20 02	0 23 47	9 4 33	11 15 52	11 10 39	10 18 32	10 19 43
Apr. 1	4 12	0 20 16	0 24 13	9 5 56	11 17 50	11 13 08	10 20 57	10 22 13
3	6 12	0 20 30	0 24 38	9 7 19	11 19 49	11 15 37	10 23 31	10 24 50
5	8 12	0 20 44	0 25 04	9 8 42	11 21 47	11 18 06	10 26 12	10 27 35
7	10 12	0 20 58	0 25 31	9 10 05	11 23 45	11 20 35	10 29 00	11 0 26
9	12 12	0 21 12	0 25 57	9 11 28	11 25 43	11 23 03	11 1 54	11 3 24
11	14 12	0 21 27	0 26 24	9 12 51	11 27 40	11 25 32	11 4 56	11 6 29
13	17 12	0 21 42	0 26 50	9 14 14	11 29 38	11 28 01	11 8 04	11 9 40
15	19 12	0 21 56	0 27 17	9 15 36	0 1 36	0 0 29	11 11 18	11 12 58
17	21 12	0 22 11	0 27 44	9 16 59	0 3 33	0 2 58	11 14 39	11 16 22

Ayanamsa on 1st Jan. : 23° 02′ 08″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	21	12	0 22 11	0 27 44	9 16 59	0 3 33	0 2 58	11 14 39	11 16 22
19	23	12	0 22 26	0 28 12	9 18 22	0 5 30	0 5ó26	11 18 07	11 19 53
21	25	12	0 22 41	0 28 39	9 19 45	0 7 27	0 7 54	11 21 41	11 23 30
23	27	12	0 22 56	0 29 07	9 21 07	0 9 24	0 10 23	11 25 21	11 27 14
25	29	12	0 23 12	0 29 34	9 22 30	0 11 21	0 12 51	11 29 08	0 1 04
27	1	1	0 23 27	1 0 02	9 23 53	0 13 18	0 15 19	0 3 02	0 5 01
29	3	1	0 23s42	1 0 30	9 25 15	0 15 15	0 17 47	0 7 02	0 9 04
May 1	5	1	0 23 57	1 0 58	9 26 37	0 17 11	0 20 15	0 11 08	0 13 13
3	6	1	0 24 13	1 1 26	9 27 59	0 19 08	0 22 43	0 15 20	0 17 28
5	8	1	0 24 28	1 1 54	9 29 21	0 21 04	0 25 11	0 19 36	0 21ó46
7	11	1	0 24 44	1 2 22	10 0 43	0 23 00	0 27 39	0 23 56	0 26 06
9	13	1	0 24ó59	1 2s50	10 2 05	0 24 56	1 0 07	0 28 16	1 0 27
11	15	1	0 25 14	1 3 18	10 3 26	0 26 52	1 2 35	1 2 36	1 4 45
13	18	1	0 25 30	1 3 47	10 4 48	0 28 48	1 5 03	1 6 53	1 9 00
15	20	1	0 25 45	1 4 15	10 6 09	1 0 44	1 7 30	1 11 05	1 13 09
17	22	1	0 26 01	1 4 43	10 7 30	1 2 39	1 9 58	1 15 10	1 17 09
19	24	1	0 26 16	1 5ó12	10 8 51	1 4 35	1 12 26	1 19 06	1 21 00
21	26	1	0 26 31	1 5 40	10 10 11	1 6 30	1 14 53	1 22 51	1 24 40
23	28	1	0 26 47	1 6 08	10 11 32	1 8 26	1 17 31	1 26 26	1 28 07
25	29	1	0 27r02	1 6 36	10 12 52	1 10 21	1 19 48	1 29 48	2 1 24
27	1	2	0 27 17	1 7 05	10 14 11	1 12 16	1 22 15	2 2 58	2 4 29
29	3	2	0 27 32	1 7 33	10 15 31	1 14 11	1 24 43	2 5 56	2 7 20
31	5	2	0 27 47	1 8 01	10 16 50	1 16 06	1 27 10	2 8 41	2 9 59
June 2	7	2	0 28 02	1 8r29	10 18 07	1 18 01	1 29 37	2 11 13	2 12 24
4	9	2	0 28 17	1 8 57	10 19 27	1 19 56	2 2 04	2 13 31	2 14 35
6	11	2	0 28 31	1 9 25	10 20 45	1 21 51	2 4 31	2 15 35	2 16 32
8	14	2	0 28 46	1 9 53	10 22 01	1 23 46	2 6 59	2 17 25	2 18 14
10	16	2	0 29 00	1 10 21	10 23 18	1 25 41	2 9 26	2 18 59	2 19 41
12	18	2	0 29 15	1 10 48	10 24 35	1 27 35	2 11 53	2 20 18	2 20 51
14	20	2	0 29 29	1 11 16	10 25 52	1 29 30	2 14 20	2 21 19	2 21 44
16	22	2	0 29 43	1 11 43	10 27 08	2 1 25	2 16 46	2 22 03	2 22 19
18	24	2	0 29 57	1 12 11	10 28 23	2 3 19	2 19 13	2 22 30	2R22 30
20	26	2	1 0 10	1 12 38	10 29 38	2 5 14	2 21 40	2 22 38	2 22 3
22	28	2	1 0 24	1 13 05	11 0 52	2 7 08	2 24 07	2 22 28	2 22 17
24	30	2	1 0 37	1 13 32	11 2 05	2 9 03	2 26 34	2 22 01	2 21s41
26	2	3	1 0 50	1 13 58	11 3 17	2 10 57	2 29 00	2 21 17	2 20 51
28	4	3	1 1 03	1 14 25	11 4 29	2 12 52	3 1 27	2 20 21	2 19 49
30	6	3	1 1 16	1 14 51	11 5 42	2 14 46	3 3 53	2 19 15	2 18 39
July 2	8	3	1 1 28	1 15 17	11 6 50	2 16 40	3 6 20	2 18 03	2 17ó26
4	10	3	1 1 41	1 15 43	11 7 59	2 18 35	3 8 46	2 16 50	2 16 15
6	12	3	1 1 53	1 16 09	11 9 08	2 20 29	3 11 13	2 15 41	2 15 10
8	15	3	1 2 05	1 16 34	11 10 15	2 22 24	3 13 39	2 14 42	2 14 16
10	17	3	1 2 16	1 16 59	11 11 22	2 24 18	3 16 05	2 13r55	2 13 38
12	19	3	1 2 27	1 17 24	11 12 27	2 26 12	3 18 31	2 13 25	2 13 17
14	21	3	1 2 38	1 17 49	11 13 31	2 28 07	3 20 57	2D13 14	2 13 16
16	23	3	1 2 49	1 18 13	11 14 35	3 0 01	3 23 23	2 13 24	2 13 37
18	25	3	1 3 00	1 18 37	11 15 36	3 1 56	3 25 49	2 13 56	2 14 21
20	26	3	1 3 10	1 19 01	11 16 37	3 3 50	3 28 15	2 14 51	2 15 26
22	28	3	1 3 20	1 19 25	11 17 36	3 5 45	4 0 41	2 16 07	2 16 54
24	30	3	1 3 29	1 19 48	11 18 34	3 7 39	4 3 07	2 17 46	2 18 44
26	2	4	1 3 39	1 20 11	11 19 30	3 9 34	4 5 33	2 19 47	2 20 55
28	4	4	1 3 48	1 20 33	11 20 25	3 11 29	4 7 58	2 22 08	2 23 26
30	6	4	1 3 56	1 20 56	11 21 18	3 13 23	4 10 24	2 24 49	2 26 17
Aug. 1	9	4	1 4 05	1 21 17	11 22 09	3 15 18	4 12 49	2 27 49	2 29 26

EPHEMERIS Longitudes of Planets 1941 A.D.

***Ayanamsa* on 1st Jan. : 23° 02′ 08″**

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	9	4	1	4	05	1	21	17	11	22	09	3	15	18	4	12	49	2	27	49	2	29	26
3	11	4	1	4	12	1	21	39	11	22	57	3	17	13	4	15	14	3	1	06	3	2	51
5	13	4	1	4	20	1	22	00	11	23	46	3	19	08	4	17	39	3	4	39	3	6	29
7	15	4	1	4	27	1	22	20	11	24	31	3	21	03	4	20	04	3	8	23	3	10s	19
9	17	4	1	4	34	1	22	41	11	25	15	3	22	58	4	22	29	3	12	16	3	14	16
11	19	4	1	4	41	1	23	00	11	25	56	3	24	53	4	24	54	3	16	17	3	18	19
13	21	4	1	4	47	1	23	20	11	26	35	3	26	48	4	27	19	3	20	21	3	22	24
15	23	4	1	4	53	1	23	39	11	27	11	3	28	43	4	29	44	3	24	26	3	26	29
17	25	4	1	4	58	1	23	57	11	27	45	4	0	39	5	2	08	3	28	31	4	0	32
19	27	4	1	5	03	1	24	15	11	28	16	4	2	34	5	4	32	4	2	33	4	4	32
21	29	4	1	5	08	1	24	32	11	28	44	4	4	30	5	6	56	4	6	31	4	8	28
23	1	5	1	5	12	1	24	49	11	29	10	4	6	25	5	9	21	4	10	25	4	12	20
25	3	5	1	5	15	1	25	05	11	29	32	4	8	21	5	11	45	4	14	14	4	16	07
27	5	5	1	5	19	1	25	21	11	29	52	4	10	17	5	14	08	4	17	57	4	19	57
29	7	5	1	5	22	1	25	37	0	0	08	4	12	13	5	16	32	4	21	36	4	23r	23
31	10	5	1	5	24	1	25	51	0	0	21	4	14	09	5	18	56	4	25	09	4	26	54
Sept. 2	12	5	1	5	26	1	26	05	0	0	31	4	16	05	5	21	19	4	28	39	5	0	20
4	14	5	1	5	28	1	26	19	0	0	37	4	18	01	5	23	42	5	2	01	5	3	41
6	16	5	1	5	29	1	26	32	0R	0	40	4	19	58	5	26	05	5	5	20	5	6	57
8	18	5	1	5	30	1	26	44	0	0	40	4	21	54	5	28	28	5	8	33	5	10	03
10	20	5	1R	5	30	1	26	56	0	0	36	4	23	51	6	0	50	5	11	44	5	13	15
12	21	5	1	5	30	1	27	07	0	0	29	4	25	47	6	3	13	5	14	47	5	16	18
14	23	5	1	5	30	1	27	17	0	0	18	4	27	44	6	5	35	5	17	47	5	19	15
16	25	5	1	5	29	1	27	27	0	0	04	4	29	41	6	7	57	5	20	44	5	22	09
18	27	5	1	5	27	1	27	36	11	29	46	5	1	38	6	10	19	5	23	34	5	24	57
20	29	5	1	5	26	1	27	44	11	29	25	5	3	35	6	12	40	5	26	21	5	27	41
22	1	6	1	5	23	1	27	51	11	29	01	5	5	33	6	15	02	5	29	02	6	0	20
24	4	6	1	5	21	1	27	58	11	28	35	5	7	30	6	17	23	6	1	37	6	2	52
26	6	6	1	5	18	1	28	04	11	28	05	5	9	28	6	19	44	6	4	07	6	5	19
28	8	6	1	5	14	1	28	09	11	27	34	5	11	26	6	22	04	6	6	31	6	7	39
30	10	6	1	5	10	1	28	14	11	27	00	5	13	24	6	24	25	6	8	47	6	9	51
Oct. 2	12	6	1	5	06	1	28	17	11	26	25	5	15	22	6	26	45	6	10	54	6	11	53
4	14	6	1	5	01	1	28	20	11	25	48	5	17	20	6	29	05	6	12	52	6	13	47
6	16	6	1	4	56	1	28	22	11	25	12	5	19	18	7	1	24	6	14	38	6	15	26
8	18	6	1	4	51	1	28	23	11	24	34	5	21	16	7	3	45	6	16	21	6	16	51
10	20	6	1	4	45	1R	28	23	11	23	56	5	23	15	7	6	02	6	17	27	6	17	59
12	22	6	1	4	39	1	28	23	11	23	19	5	25	13	7	8	20	6	18	25	6	18	44
14	23	6	1	4	32	1	28	22	11	22	42	5	27	12	7	10	38	6	18	59	6R	19	06
16	25	6	1	4	26	1	28	20	11	22	07	5	29	11	7	12	56	6	19	06	6	18	58
18	28	6	1	4	18	1	28	18	11	21	32	6	1	10	7	15	13	6	18	42	6	18	17
20	30	6	1	4	11	1	28	14	11	21	00	6	3	10	7	17	30	6	17	44	6	17	01
22	2	7	1	4	03	1	28	10	11	20	30	6	5	09	7	19	46	6	16s	11	6	15	11
24	4	7	1	3	55	1	28	05	11	20	01	6	7	09	7	22	02	6	14	07	6	12	55
26	7	7	1	3	47	1	27	59	11	19	36	6	9	08	7	24	17	6	11	41	6	10	25
28	9	7	1	3	38	1	27	53	11	19	14	6	11	08	7	26	32	6	9	09	6	7	56
30	11	7	1	3	30	1	27	45	11	18	54	6	13	08	7	28	46	6	6	48	6	5	47
Nov. 1	13	7	1	3	21	1	27	37	11	18	37	6	15	08	8	0	59	6	4	56	6	4r	15
3	15	7	1	3	12	1	27	28	11	18	23	6	17	08	8	3	12	6	3	45	6	3	26
5	16	7	1	3	02	1	27	18	11	18	13	6	19	08	8	5	24	6D	3	19	6	3	22
7	18	7	1	2	53	1	27	08	11	18	06	6	21	09	8	7	35	6	3	38	6	4	02
9	20	7	1	2	44	1	26	57	11	18	03	6	23	09	8	9	45	6	4	38	6	5	20
11	22	7	1	2	34	1	26	46	11D	18	01	6	25	10	8	11	54	6	6	10	6	7	06
13	24	7	1	2	24	1	26	33	11	18	03	6	27	10	8	14	03	6	8	09	6	9	16
15	26	7	1	2	14	1	26	21	11	18	10	6	29	11	8	16	10	6	10	28	6	11	43

1941 A.D Longitudes of Planets CONDENSED

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ गु	म ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	26 7	1*R*2 14	1*R*26 21	11 18 10	6 29 11	8 16 10	6 10 28	6 11 43
17	28 7	1 2 05	1 26 07	11 18 19	7 1 12	8 18 16	6 13 02	6 14 22
19	30 7	1 1 53	1 25 54	11 18 31	7 3 13	8 20 21	6 15 47	6 17 11
21	3 8	1 1 45	1 25 39	11 18 45	7 5 15	8 22 25	6 18 39	6 20 06
23	5 8	1 1 35	1 25 25	11 19 03	7 7 16	8 24 27	6 21 37	6 23 05
25	7 8	1 1 26	1 25 10	11 19 23	7 9 17	8 26 28	6 24 37	6 26 07
27	9 8	1 1 16	1 24 54	11 19 46	7 11 19	8 28 27	6 27 40	6 29 11
29	11 8	1 1 07	1 24 39	11 20 12	7 13 20	9 0 25	7 0 45	7 2 17
Dec. 1	13 8	1 0 57	1 24 23	11 20 40	7 15 22	9 2 20	7 3 51	7 5 24
3	15 8	1 0 48	1 24 07	11 21 10	7 17 23	9 4 14	7 6 57	7 8 30
5	17 8	1 0 39	1 23 50	11 21 42	7 19 25	9 6 05	7 10 04	7 11 36
7	18 8	1 0 30	1 23 34	11 22 16	7 21 27	9 7 53	7 13 11	7 14 43
9	20 8	1 0 21	1 23 18	11 22 53	7 23 29	9 9 40	7 16 18	7 17 51
11	22 8	1 0 13	1 23 01	11 23 31	7 25 31	9 11 23	7 19 25	7 20 58
13	24 8	1 0 05	1 22 45	11 24 11	7 27 33	9 13 03	7 22 33	7 24 07
15	26 8	0 29 57	1 22 29	11 24 52	7 29 35	9 14 40	7 25 41	7 27 15
17	29 8	0 29 49	1 22 13	11 25 36	8 1 37	9 16 14	7 28 48	8 0 22
19	1 9	0 29 42	1 21 57	11 26 21	8 3 39	9 17 43	8 1 57	8 3 32
21	3 9	0 29 35	1 21 41	11 27 08	8 5 41	9 19 09	8 5 07	8 6 41
23	6 9	0 29 28	1 21 26	11 27 56	8 7 44	9 20 30	8 8 17	8 9 52
25	8 9	0 29 22	1 21 11	11 28 45	8 9 46	9 21 45	8 11 28	8 13 05
27	9 9	0 29 16	1 20 57	11 29 36	8 11 48	9 22 56	8 14 41	8 16 17
29	11 9	0 29 10	1 20 43	0 0 27	8 13 50	9 24 01	8 17 53	8 19 30
31	13 9	0 29 05	1 20 29	0 1 20	8 15 53	9 24 59	8 21 08	8 22 45
Jan. 2	15 9	0 29 00	1 20 16	0 2 15	8 17 55	9 25 50	8 24 23	8 26 01

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	5 12 54	5 13 8	0*R*29 29	5 R 4 40	3 *R*10 39	23 2 8
February	1	5 9 48	5 11 30	0D29 7	5 4 22	3 10 1	23 2 13
March	1	5 8 39	5 10 1	0 29 30	5 3 45	3 9 22	23 2 16
April	1	5 8 38	5 8 22	1 0 37	5 2 54	3 9 2	23 2 19
May	1	5 8 13	5 6 47	1 2 12	5 2 13	3D 9 2	23 2 21
June	1	5 6 0	5 5 9	1 4 0	5 1 52	3 9 28	23 2 26
July	1	5 2 45	5 3 32	1 5 31	5 D 2 2	3 10 10	23 2 30
August	1	5 0 20	5 1 54	1 6 46	5 2 40	3 11 1	23 2 35
September	1	4 29 39	5 0 15	1 7 17	5 3 40	3 11 50	23 2 38
October	1	4 29 44	4 28 40	1 R 7 2	5 4 45	3 12 27	23 2 41
November	1	4 28 45	4 27 1	1 6 6	5 5 49	3 12 41	23 2 44
December	1	4 26 2	4 25 26	1 4 52	5 6 33	3 R12 37	23 2 48
January	1	4 22 32	4 23 48	1 3 47	5 6 50	3 12 7	23 2 53

Combustion or Heliacal Setting of Planets

Saturn : From Apr. 28 to May 25.
Jupiter : From May 9 to June 1.
Mars : — —
Venus : — —
Mercury : Up to Jan. 27 then from Feb. 21 to Mar. 8, June 25 to July 10 Aug. 8 to Aug. 30, Oct. 22 to Nov. 2, Dec. 2 to next year.

Retrogression of Planets

PLANET	RETROGRADE				DIRECT			
	Date			Long.	Date			Long.
		h	m	s ° ′		h	m	s s ′
Mercury	Feb. 17, June 19, Oct. 15,	16 26 16	21 42 48	10 20 25 2 22 38 6 19 7	Mar. 11, July 14, Nov. 5,	21 6 7	13 52 12	10 5 52 2 13 14 6 3 19
Venus	—	—		—	—	—		—
Mars	Sept. 6,	24	5	0 0 40	Nov. 10,	14	7	11 18 1
Jupiter	Oct. 10,	12	51	1 28 23	—	—		—
Saturn	— Sept. 11,	— 21	 55	— 1 5 30	Jan. 9, —	16 —	53 	0 14 51 —
Uranus	— Sept. 5,	— 20	 57	— 1 7 18	Jan. 30, —	7 —	6 	0 29 7 —
Neptune	—	—		—	June 5,	23	39	5 1 52
Pluto	— Nov. 4,	—		— 3 12 42	Apr 12, —	 —		3 9 1 —

New-Moon and Full-Moon

New-Moon	d h m	Lunar months begin		Full-Moon	d h m	Hindi months. begin	
				Jan.	13 16 34	Māgha	Vadi
Jan.	27 16 33	Māgha	Sukla	Feb.	12 5 56	Phālguna	"
Feb.	26 8 32	Phālguna	"	Mar.	13 17 17	Caitra	"
Mar.	27 25 44	Caitra	"	Apr.	11 26 45	Vaiśākha	"
Apr.	26 18 53	Vaiśākha	"	May	11 10 45	Jyaiṣṭha	"
May	26 10 48	Jyaiṣṭha	"	June	9 13 4	Āṣāḍha	"
June	24 24 52	Āṣāḍha	"	July	8 25 47	Śrāvaṇa	"
July	24 13 9	Śrāvaṇa	"	Aug.	7 11 8	Bhādra	"
Aug.	22 24 4	Bhādra	"	Sept.	5 23 6	Āśvina	"
Sept.	21 10 8	Āśvina	"	Oct.	5 14 2	Kārtika	"
Oct.	20 19 50	Kārtika	"	Nov.	4 7 30	Agrahā	"
Nov.	19 5 34	Agrahā	"	Dec.	3 26 21	Pauṣa	"
Dec.	18 15 48	Pauṣa	"		—		

Sun's entry into Nirayana Signs

			d h m				d h m
Makara	on	Jan.	13 19 54	Karkaṭa	on	July	15 29 1
Kumbha	on	Feb.	12 9 1	Siṁha	on	Aug.	16 13 23
Mina	on	Mar.	14 5 51	Kanyā	on	Sept.	16 13 17
Meṣa	on	Apr.	13 14 26	Tulā	on	Oct.	16 25 11
Vṛṣa	on	May.	14 11 25	Vṛścika	on	Nov.	15 24 52
Mithuna	on	June	14 18 5	Dhanus	on	Dec	15 15 21

1942 A.D. Longitude of Moon CONDENSED

Saka era 1863-64, Samvat 1998-99 (Mar. 17, Nov. 9), B. S. 1348-49 (Apr. 14), Kollam era 1117-18 (Aug. 17). 16 Chitrabhānu (Mar. 17, Apr. 14).

Nirayana Long. of Moon (ম ☽ চ) at 5-30 A.M. I.S.T.

Date	Beng. Date		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.28	13	9	0	11	4	0	22	55	1	4	45	1	16	38	1	28	35	2	10	38	2	22	49
Jan. 4	20	9	3	5	7	3	17	35	4	0	12	4	13	0	4	26	1	5	9	17	5	22	50
11	27	9	6	6	43	6	20	55	7	5	24	7	20	9	8	5	1	8	19	53	9	4	36
18	4	10	9	19	2	10	3	6	10	16	43	10	29	54	11	12	41	11	25	8	0	7	18
25	11	10	0	19	17	1	1	9	1	13	1	1	24	55	2	6	55	2	19	5	3	1	25
Feb. 1	18	10	3	13	58	3	26	44	4	9	41	4	22	51	5	6	13	5	19	47	6	3	31
8	25	10	6	17	27	7	1	33	7	15	43	8	0	10	8	14	34	8	28	56	9	13	11
15	3	11	9	27	15	10	11	2	10	24	29	11	7	37	11	20	24	0	2	52	0	15	6
22	10	11	0	27	7	1	9	2	1	20	55	2	2	50	2	14	51	2	27	4	3	9	31
Mar. 1	17	11	3	22	14	4	5	15	4	18	33	5	2	9	5	15	58	5	29	59	6	14	8
8	24	11	6	28	21	7	12	36	7	26	50	8	10	59	8	25	8	9	8	58	9	22	44
15	1	12	10	6	18	10	19	40	11	2	48	11	15	41	11	28	19	0	10	44	0	22	55
22	8	12	1	4	57	1	16	52	1	28	45	2	10	39	2	22	40	3	4	51	3	17	19
29	15	12	4	0	5	4	13	14	4	26	47	5	10	42	5	24	56	6	9	26	6	24	4
Apr. 5	22	12	7	8	44	7	23	19	8	7	44	8	21	55	9	5	50	9	19	30	10	2	54
12	29	12	10	15	59	10	29	3	11	11	49	11	24	24	0	6	48	0	19	3	1	1	9
19	6	1	1	13	7	1	25	1	2	6	52	2	18	45	3	0	43	3	12	52	3	25	16
26	13	1	4	8	0	4	21	9	5	4	44	5	18	48	6	3	17	6	18	6	7	8	9
May 3	20	1	7	18	14	8	3	12	8	17	55	9	2	17	9	16	17	9	29	53	10	13	8
10	27	1	10	26	5	11	8	47	11	21	16	0	3	35	0	15	46	0	27	50	1	9	49
17	3	2	1	21	43	2	3	35	2	15	26	2	27	19	3	9	16	3	21	24	4	3	45
24	10	2	4	16	25	4	29	29	5	13	0	5	27	1	6	11	31	6	26	26	7	11	33
31	17	2	7	26	57	8	12	11	8	27	10	9	11	47	9	25	56	10	9	38	10	22	54
June 7	24	2	11	5	48	11	18	23	0	0	43	0	12	53	0	24	55	1	6	51	1	18	45
14	31	2	2	0	37	2	12	28	2	24	21	3	6	17	3	18	19	4	0	30	4	12	53
21	6	3	4	25	33	5	8	33	5	21	59	6	5	52	6	20	13	7	4	59	7	20	5
28	13	3	8	5	21	8	20	37	9	5	42	9	20	26	10	4	45	10	18	35	11	1	57
July 5	20	3	11	14	51	11	27	36	0	9	48	0	21	55	1	3	53	1	15	47	1	27	38
12	27	3	2	9	30	2	21	24	3	3	22	3	15	26	3	27	38	4	9	59	4	22	31
19	6	4	5	5	19	5	18	23	6	1	48	6	15	35	6	29	45	7	14	16	7	29	4
26	10	4	8	14	4	8	29	5	9	14	0	9	28	40	10	12	58	10	26	52	11	10	19
Aug. 2	17	4	11	23	21	0	6	1	0	18	23	1	0	30	1	12	28	1	24	21	2	6	12
9	24	4	2	18	6	3	0	5	3	12	11	3	24	26	4	6	52	4	19	30	5	2	20
16	31	4	5	15	24	5	28	43	6	12	16	6	26	5	7	10	9	7	24	26	8	8	54
23	6	5	8	23	29	9	8	6	9	22	38	10	7	0	10	21	6	11	4	53	11	18	18
30	13	5	0	1	22	0	14	4	0	26	28	1	8	37	1	20	37	2	2	30	2	14	22
Sept. 6	20	5	2	26	17	3	8	20	3	20	33	4	3	0	4	15	42	4	28	40	5	11	54
13	27	5	5	25	22	6	9	4	6	22	57	7	6	58	7	21	6	8	5	17	8	19	31
20	3	6	9	3	44	9	17	53	10	1	58	10	15	54	10	29	38	11	13	8	11	26	22
27	10	6	0	9	19	0	21	58	1	4	22	1	16	31	1	28	30	2	10	23	2	22	15
Oct. 4	17	6	3	4	10	3	16	13	3	28	29	4	11	3	4	23	57	5	7	12	5	20	49
11	24	6	6	4	44	6	18	55	7	3	15	7	17	39	8	2	2	8	16	20	9	0	30
18	1	7	9	14	30	9	28	21	10	12	0	10	25	30	11	8	49	11	21	57	0	4	53
25	8	7	0	17	36	1	0	7	1	12	24	1	24	30	2	6	27	2	18	18	3	0	8
Nov. 1	15	7	3	12	0	3	24	1	4	6	16	4	18	50	5	1	47	5	15	10	5	29	1
8	22	7	6	11	16	6	27	51	7	12	39	7	27	31	8	12	18	8	26	53	9	11	13
15	29	7	9	25	14	10	8	57	10	22	24	11	5	35	11	18	34	0	1	21	0	13	57
22	6	8	0	26	24	1	8	42	1	20	50	2	2	50	2	14	44	2	26	33	3	8	21
29	13	8	3	20	12	4	2	10	4	14	20	4	26	49	5	9	42	5	23	2	6	6	52
Dec. 6	20	8	6	21	12	7	5	58	7	21	1	8	6	14	8	21	24	9	6	21	9	20	59
13	27	8	10	5	13	10	19	3	11	2	30	11	15	35	11	28	23	0	10	57	0	23	19
20	4	9	1	5	32	1	17	37	1	29	36	2	11	30	2	23	21	3	5	10	3	16	59
27	11	9	3	28	52	4	10	52	4	23	3	5	5	29	5	18	17	6	1	29	6	15	10
Jan 3	18	9	6	29	20	7	13	57	7	28	58	8	14	12	8	29	30	9	14	41	9	29	36

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Ayanamsa on 1st Jan. : 23° 02′ 53″

Date	Tithi & Month		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			Nirayana Longitudes at 5-30 A.M. I.S.T.						
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	14	9	0 R29 03	1 R20 22	0 1 47	8 16 54	9 25 25	8 22 45	8 24 23
3	16	9	0 28 58	1 20 09	0 2 42	8 18 56	9 26 18	8 26 01	8 27 39
5	18	9	0 28 54	1 19 57	0 3 37	8 20 58	9 26 53	8 29 18	9 0 56
7	20	9	0 28 50	1 19 46	0 4 34	8 23 01	9 27 25	9 2 35	9 4 14
9	22	9	0 28 46	1 19 35	0 5 31	8 25 03	9 27 49	9 5 53	9 7r32
11	24	9	0 28 43	1 19 25	0 6 29	8 27 05	9 28 03	9 9 11	9 10 50
13	26	9	0 28 41	1 19 15	0 7 28	8 29 08	9 R28 08	9 12 28	9 14 06
15	28	9	0 28 39	1 19 06	0 8 29	9 1 10	9 28 03	9 15 42	9 17 18
17	1	10	0 28 37	1 18 58	0 9 29	9 3 12	9 27 49	9 18 53	9 20 25
19	3	10	0 28 36	1 18 51	0 10 31	9 5 14	9 27 24	9 21 56	9 23 25
21	5	10	0 28 35	1 18 44	0 11 33	9 7 16	9 26 49	9 24 50	9 26 12
23	7	10	0 28 35	1 18 39	0 12 35	9 9 19	9 26 05	9 27 30	9 28 43
25	9	10	0 D28 36	1 18 34	0 13 38	9 11 21	9 25 12	9 29 50	10 0 51
27	10	10	0 28 36	1 18 29	0 14 42	9 13 23	9 24 11	10 1 45	10 2 31
29	12	10	0 28 37	1 18 26	0 15 46	9 15 24	9 23 05	10 3 08	10 3 35
31	14	10	0 28 38	1 18 28	0 16 51	9 17 26	9 21 53	10 3 52	10 R3 58
Feb. 2	16	10	0 28 40	1 18 21	0 17 57	9 19 28	9 20 40	10 3 53	10 3 37
4	18	10	0 28 43	1 18 20	0 19 02	9 21 30	9 19 25	10 3 09	10 2 31
6	20	10	0 28 45	1 D18 20	0 20 09	9 23 31	9 18 13	10 1 44	10 0 49
8	22	10	0 28 48	1 18 21	0 21 15	9 25 33	9 17 04	9 29 47	9 28 41
10	25	10	0 28 52	1 18 22	0 22 22	9 27 34	9 16 00	9 27 31	9 26 20
12	27	10	0 28 57	1 18 24	0 23 29	9 29 36	9 15 02	9 25 10	9 24 02
14	29	10	0 29 01	1 18 27	0 24 37	10 1 37	9 14 13	9 22 59	9 22 01
16	1	11	0 29 06	1 18 31	0 25 45	10 3 38	9 13 33	9 21 09	9 20 25
18	3	11	0 29 12	1 18 36	0 26 54	10 5 39	9 13 02	9 19 47	9 19 18
20	5	11	0 29 17	1 18 41	0 28 02	10 7 40	9 12 41	9 18 56	9 18 47
22	7	11	0 29 23	1 18 47	0 29 11	10 9 41	9 12 30	9 D18 35	9 18 35
24	9	11	0 29 30	1 18 54	1 0 20	10 11 42	9 D12 29	9 18 41	9 18 54
26	11	11	0 29 38	1 19 02	1 1 30	10 13 43	9 12 37	9 19 13	9 19 37
28	12	11	0 29 45	1 19 11	1 2 39	10 15 43	9 12 55	9 20 06	9 20 40
Mar. 2	14	1	0 29 53	1 19 20	1 3 49	10 17 44	9 13 21	9 21 18	9 22 00
4	17	11	1 0 01	1 19 30	1 5 00	10 19 44	9 13 55	9 22 46	9 23 36
6	19	11	1 0 09	1 19 40	1 6 10	10 21 44	9 14 37	9 24 29	9 25 25
8	21	11	1 0 18	1 19 51	1 7 21	10 23 44	9 15 27	9 26 24	9 27 25
10	23	11	1 0 28	1 20 03	1 8 31	10 25 44	9 16 23	9 28 29	9 29 35
12	25	11	1 0 36	1 20 16	1 9 42	10 27 44	9 17 25	10 0 44	10 1 55
14	27	11	1 0 47	1 20 29	1 10 53	10 29 44	9 18 33	10 3 07	10 4 22
16	30	11	1 0 57	1 20 42	1 12 04	11 1 43	9 19 46	10 5 38	10 6 56
18	2	12	1 1 07	1 20 56	1 13 16	11 3 43	9 21 04	10 8 16	10 9 38
20	3	12	1 1 18	1 21 11	1 14 27	11 5 42	9 22 27	10 11 01	10 12 25
22	5	12	1 1 30	1 21 27	1 15 39	11 7 41	9 23 53	10 13 51	10 15 19
24	7	12	1 1 41	1 21 43	1 16 50	11 9 40	9 25 24	10 16 48	10 18 18
26	9	12	1 1 53	1 21 59	1 18 02	11 11 39	9 26 58	10 19 50	10 21 24
28	11	12	1 2 04	1 22 16	1 19 14	11 13 38	9 28 35	10 22 58	10 24 34
30	13	12	1 2 16	1 22 34	1 20 26	11 15 36	10 0 15	10 26 12	10 27 50
Apr 1	15	12	1 2 29	1 22 53	1 21 39	11 17 35	10 1 58	10 29 30	11 1 12
3	17	12	1 2 41	1 23 11	1 22 51	11 19 33	10 3 44	11 2 55	11 4 39
5	19	12	1 2 54	1 23 30	1 24 03	11 21 31	10 5 32	11 6 25	11 8 12
7	22	12	1 3 08	1 23 50	1 25 15	11 23 29	10 7 22	11 10 01	11 11 51
9	24	12	1 3 21	1 24 10	1 26 28	11 25 27	10 9 14	11 13 43	11 15s36
11	26	12	1 3 34	1 24 30	1 27 40	11 27 25	10 11 08	11 17 31	11 19 27
13	28	12	1 3 48	1 24 51	1 28 53	11 29 23	10 13 04	11 21 25	11 23 24
15	30	12	1 4 02	1 25 12	2 0 06	0 1 20	10 15 02	11 25 24	11 27 26
17	2	1	1 4 16	1 25 33	2 1 19	0 3 18	10 17 01	11 29 29	0 1 33

Ayanamsa on 1st Jan. : 23° 02′ 53″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr. 17	2	1	1	4	16	1	25	33	2	1	19	0	3	18	10	17	01	11	29	29	0	1	33
19	4	1	1	4	30	1	25	55	2	2	31	0	5	15	10	19	01	0	3	38	0	5	44
21	5	1	1	4	44	1	26	18	2	3	44	0	7	12	10	21	03	0	7	51	0	9	59
23	7	1	1	4	58	1	26	40	2	4	57	0	9	09	10	23	06	0	12	07	0	14	16
25	9	1	1	5	13	1	27	03	2	6	10	0	11	06	10	25	10	0	16	24	0	18	32
27	11	1	1	5	27	1	27	26	2	7	24	0	13	03	10	27	15	0	20	39	0	22	45
29	13	1	1	5	42	1	27	49	2	8	37	0	15	00	10	29	21	0	24	50	0	26	53
May 1	16	1	1	5	57	1	28	13	2	9	50	0	16	56	11	1	29	0	28	54	1	0	53
3	18	1	1	6	12	1	28	37	2	11	03	0	18	53	11	3	37	1	2	50	1	4	45
5	20	1	1	6	28	1	29	01	2	12	17	0	20	49	11	5	46	1	6	36	1	8	24
7	23	1	1	6	43	1	29	26	2	13	30	0	22	45	11	7	55	1	10	09	1	11	51
9	25	1	1	6	59	1	29	51	2	14	44	0	24	41	11	10	06	1	13	29	1	15	04
11	27	1	1	7	14s	2	0	16	2	15	57	0	26	37	11	12	17	1	16	35	1	18	02
13	28	1	1	7	29	2	0	41	2	17	11	0	28	33	11	14	29	1	19	26	1	20	45
15	30	1	1	7	44	2	1	06	2	18	24	1	0	29	11	16	41	1	22	01	1	23	13
17	2	2	1	8	00	2	1	32	2	19	38	1	2	24	11	18	54	1	24	21	1	25	25
19	4	2	1	8	15	2	1	58	2	20	51	1	4	20	11	21	08	1	26	24	1	27	20
21	6	2	1	8	31	2	2	24	2	22	05	1	6	16	11	23	22	1	28	11	1	28	58
23	8	2	1	8	46	2	2	50	2	23	18	1	8	11	11	25	36	1	29	40	2	0	18
25	10	2	1	9	02	2	3	16	2	24	32	1	10	08	11	27	51	2	0	51	2	1	20
27	12	2	1	9	17	2	3	43	2	25	46	1	12	02	0	0	07	2	1	44	2	2	04
29	14	2	1	9	33	2	4	09	2	27	00	1	13	57	0	2	23	2	2	19	2	2	29
31	16	2	1	9	48	2	4	36	2	28	13	1	15	52	0	4	39	2	2	34	2	R2	35
June 2	19	2	1	10	04	2	5	03	2	29	27	1	17	47	0	6	56	2	2	31	2	2	23
4	21	2	1	10	19	2	5	30	3	0	41	1	19	42	0	9	13	2	2	11	2	1	55
6	23	2	1	10	35r	2	5	56	3	1	55	1	21	36	0	11	30	2	1	34	2	1	11
8	25	2	1	10	50	2	6	23	3	3	09	1	23	31	0	13	48	2	0	45	2	0	16
10	27	2	1	11	06	2	6	51	3	4	23	1	25	26	0	16	06	1	29	45	1	29	13
12	29	2	1	11	21	2	7	18	3	5	37	1	27	21	0	18	25	1	28	40	1	28	06
14	1	2	1	11	36	2	7	45	3	6	51	1	29	15	0	20	43	1	27	33	1	27	00
16	2	2	1	11	51	2	8	12	3	8	05	2	1	10	0	23	02	1	26	28	1	25	58
18	4	2	1	12	06	2	8	40	3	9	19	2	3	05	0	25	22	1	25	31	1	25	07
20	6	2	1	12	21	2	9	07	3	10	34	2	4	59	0	27	41	1	24	46	1	24	28
22	8	2	1	12	35	2	9	35	3	11	48	2	6	54	1	0	01	1	24	14	1	24	04
24	10	2	1	12	50	2	10	02	3	13	02	2	8	48	1	2	21	1	23	59	1	D23	58
26	13	2	1	13	04	2	10	30	3	14	16	2	10	43	1	4	41	1	24	02	1	24	11
28	15	2	1	13	19	2	10	57	3	15	31	2	12	37	1	7	02	1	24	24	1	24	43
30	17	2	1	13	33	2	11	25	3	16	45	2	14	31	1	9	23	1	25	06	1	25	34
July 2	20	2	1	13	47	2	11	52	3	18	00	2	16	26	1	11	44	1	26	07	1	26	44
4	22	2	1	14	01	2	12	19	3	19	14	2	18	20	1	14	05	1	27	26	1	28	13
6	24	2	1	14	14	2	12	46	3	20	29	2	20	15	1	16	26	1	29	05	2	0	01
8	26	2	1	14	28	2	13	14	3	21	43	2	22	09	1	18	48	2	1	01	2	2	06
10	27	2	1	14	41	2	13	41	3	22	58	2	24	03	1	21	10	2	3	16	2	4	29
12	29	2	1	14	54	2	14	08	3	24	12	2	25	58	1	23	32	2	5	47	2	7	10
14	1	3	1	15	07	2	14	35	3	25	27	2	27	52	1	25	55	2	8	36	2	10	06
16	3	3	1	15	19	2	15	02	3	26	42	2	29	47	1	28	17	2	11	40	2	13	18
18	5	3	1	15	32	2	15	29	3	27	57	3	1	41	2	0	40	2	15	00	2	16	45
20	7	3	1	15	44	2	15	55	3	29	12	3	3	36	2	3	04	2	18	33	2	20	25
22	9	3	1	15	56	2	16	22	4	0	27	3	5	30	2	5	27	2	22	19	2	24	16
24	11	3	1	16	08	2	16	48	4	1	42	3	7	25	2	7	51	2	26	15	2	28	16
26	13	3	1	16	19	2	17	15	4	2	57	3	9	20	2	10	14	3	0	19	3	2	23
28	16	3	1	16	31	2	17	41	4	4	13	3	11	14	2	12	38	3	4	28	3	6	34
30	18	3	1	16	42	2	18	07	4	5	28	3	13	09	2	15	02	3	8	40	3	10	46
Aug. 1	20	3	1	16	52	2	18	33	4	6	44	3	15	04	2	17	26	3	12	52	3	14	58

Ayanamsa on 1st Jan. : 23° 02′ 53″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			बृ ♃ ह			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	20	3	1	16	52	2	18	33	4	6	44	3	15	04	2	17	26	3	12	52	3	14	58
3	22	3	1	17	03	2	18	58	4	7	59	3	16	58	2	19	51	3	17	03	3	19	07
5	24	3	1	17	13	2	19	24	4	9	15	3	18	53	2	22	15	3	21	10	3	23	12
7	26	3	1	17	23	2	19	49	4	10	30	3	20	48	2	24	40	3	25	13	3	27	12
9	28	3	1	17	33	2	20	14	4	11	46	3	22	43	2	27	05	3	29	10	4	1	07
11	29	3	1	17	42	2	20	39	4	13	02	3	24	39	2	29	30	4	3	02	4	4	56
13	1	4	1	17	50	2	21	03	4	14	18	3	26	34	3	1	56	4	6	48	4	8	39
15	3	4	1	17	59	2	21	28	4	15	34	3	28	29	3	4	22	4	10	29	4	12	17
17	5	4	1	18	07	2	21	52	4	16	50	4	0	24	3	6	48	4	14	03	4	15	48
19	8	4	1	18	15	2	22	16	4	18	06	4	2	20	3	9	14	4	17	32		19	14
21	10	4	1	18	23	2	22	40	4	19	22	4	4	15	3	11	40	4	20	55	4	22	34
23	12	4	1	18	30	2	23	03	4	20	39	4	6	11	3	14	07	4	24	12	4	25	49
25	14	4	1	18	36	2	23	26	4	21	55	4	8	07	3	16	33	4	27	24	4	28	58
27	16	4	1	18	43	2	23	49	4	23	12	4	10	02	3	19	00	5	0	30	5	2	01
29	19	4	1	18	48	2	24	11	4	24	28	4	11	58	3	21	27	5	3	31	5	5	00
31	21	4	1	18	54	2	24	33	4	25	45	4	13	54	3	23	54	5	6	27	5	7	52
Sept. 2	22	4	1	18	59	2	24	55	4	27	01	4	15	50	3	26	21	5	9	16	5	10	39
4	24	4	1	19	04	2	25	16	4	28	18	4	17	46	3	28	48	5	12	00	5	13	20
6	26	4	1	19	08	2	25	37	4	29	35	4	19	43	4	1	16	5	14	38	5	15	55
8	28	4	1	19	12	2	25	58	5	0	52	4	21	39	4	3	44	5	17	10	5	18	23
10	30	4	1	19	16	2	26	18	5	2	10	4	23	36	4	6	12	5	19	34	5	20	44
12	2	5	1	19	19	2	26	38	5	3	27	4	25	33	4	8	40	5	21	52	5	22	57
14	4	5	1	19	21	2	26	58	5	4	45	4	27	30	4	11	08	5	24	00	5	25	01
16	6	5	1	19	24	2	27	17	5	6	02	4	29	27	4	13	37	5	26	00	5	26	56
18	8	5	1	19	26	2	27	35	5	7	30	5	1	24	4	16	05	5	27	49	5	28	38
20	11	5	1	19	27	2	27	53	5	8	37	5	3	21	4	18	34	5	29	24	6	0	07
22	13	5	1	19	27	2	28	11	5	9	55	5	5	18	4	21	02	6	0	45	6	1	19
24	15	5	1	19	28	2	28	28	5	11	13	5	7	15	4	23	31	6	1	49	6	2	14
26	17	5	1R	19	28	2	28	44	5	12	31	5	9	13	4	26	00	6	2	35	6	2	48
28	19	5	1	19	27	2	29	00	5	13	50	5	11	11	4	28	29	6	2	56	6R	2	57
30	21	5	1	19	27	2	29	16	5	15	08	5	13	09	5	0	59	6	2	51	6	2	38
Oct. 2	23	5	1	19	26	2	29	31	5	16	26	5	15	06	5	3	28	6	2	17	6	1	49
4	24	5	1	19	24	2	29	45	5	17	44	5	17	05	5	5	58	6	1	13	6	0	29
6	26	5	1	19	22	2	29	58	5	19	03	5	19	03	5	8	27	5	29	38	5	28	40
8	28	5	1	19	19	3	0	11	5	20	22	5	21	01	5	10	57	5	27	37	5	26	29
10	30	5	1	19	16	3	0	24	5	21	41	5	23	00	5	13	27	5	25	19	5	24	08
12	3	6	1	19	12	3	0	36	5	23	00	5	24	59	5	15	57	5	22	58	5	21	50
14	5	6	1	19	09	3	0	47	5	24	19	5	26	57	5	18	27	5	20	47	5	19	50
16	7	6	1	19	05	3	0	58	5	25	39	5	28	56	5	20	57	5	19	02	5	18	24
18	9	6	1	19	00	3	1	08	5	26	58	6	0	55	5	23	27	5	17	56	5	17	39
20	11	6	1	18	55	3	1	17	5	28	18	6	2	55	5	25	57	5D	17	33	5	17	38
22	13	6	1	18	50	3	1	26	5	29	38	6	4	54	5	28	27	5	17	54	5	18	20
24	15	6	1	18	44	3	1	34	6	0	58	6	6	53	6	0	57	5	18	56	5	19	40
26	17	6	1	18	38	3	1	41	6	2	18	6	8	53	6	3	28	5	20	33	5	21	32
28	19	6	1	18	32	3	1	47	6	3	38	6	10	53	6	5	58	5	22	38	5	23	49
30	21	6	1	18	25	3	1	53	6	4	59	6	12	53	6	8	29	5	25	05	5	26	24
Nov. 1	23	6	1	18	17	3	1	58	6	6	19	6	14	52	6	10	59	5	27	47	5	29	13
3	25	6	1	18	10	3	2	02	6	7	40	6	16	53	6	13	30	6	0	41	6	2	11
5	27	6	1	18	02	3	2	05	6	9	00	6	18	53	6	16	00	6	3	43	6	5	16
7	29	6	1	17	54	3	2	08	6	10	21	6	20	53	6	18	31	6	6	50	6	8	25
9	1	7	1	17	46	3	2	10	6	11	42	6	22	54	6	21	01	6	10	00	6	11	36
11	3	7	1	17	37	3	2	11	6	13	03	6	24	54	6	23	32	6	13	12	6	14	49
13	6	7	1	17	29	3R	2	11	6	14	25	6	26	55	6	26	03	6	16	25	6	18	02
15	8	7	1	17	20	3	2	10	6	15	46	6	28	56	6	28	34	6	19	38	6	21	15

1942 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	♄	♃	♂	☉	♀	☿	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	8 7	1 R 17 20	3 R 2 10	6 15 46	6 28 56	6 28 35	6 19 38	6 21 15
17	10 7	1 17 11	3 2 09	6 17 08	7 0 57	7 1 04	6 22 51	6 24 27
19	12 7	1 17 02	3 2 07	6 18 30	7 2 58	7 3 35	6 26 03	6 27 39
21	14 7	1 16 52	3 2 04	6 19 52	7 4 59	7 6 06	6 29 15	7 0 51
23	16 7	1 16 42	3 2 00	6 21 14	7 7 00	7 8 37	7 2 26	7 4 01
25	17 7	1 16 32	3 1 56	6 22 36	7 9 02	7 11 07	7 5 36	7 7 11
27	19 7	1 16 23	3 1 51	6 23 59	7 11 03	7 13 33	7 8 46	7 10 20
29	21 7	1 16 13	3 1 45	6 25 21	7 13 04	7 16 09	7 11 55	7 13 29
Dec. 1	23 7	1 16 02	3 1 37	6 26 43	7 15 06	7 18 39	7 15 03	7 16 37
3	25 7	1 15 52	3 1 29	6 28 06	7 17 08	7 21 10	7 18 11	7 19 45
5	27 7	1 15 42	3 1 21	6 29 29	7 19 09	7 23 41	7 21 20	7 22 54
7	29 7	1 15 32	3 1 12	7 0 52	7 21 11	7 26 11	7 24 28	7 26 02
9	2 8	1 15 23	3 1 02	7 2 15	7 23 13	7 28 42	7 27 36	7 29 10
11	4 8	1 15 13	3 0 52	7 3 39	7 25 15	8 1 13	8 0 45	8 2 19
13	6 8	1 15 04	3 0 41	7 5 03	7 27 17	8 3 44	8 3 58	8 5 28
15	8 8	1 14 54	3 0 29	7 6 27	7 29 19	8 6 15	8 7 03	8 8 37
17	10 8	1 14 45	3 0 16	7 7 51	8 1 21	8 8 46	8 10 12	8 11 46
19	12 8	1 14 36	3 0 04	7 9 15	8 3 24	8 11 17	8 13 21	8 14 56
21	14 8	1 14 27	2 29 51	7 10 39	8 5 26	8 13 48	8 16 31	8 18 06
23	16 8	1 14 19	2 29 37	7 12 03	8 7 28	8 16 18	8 19 40	8 21 15
25	18 8	1 14 10	2 29 22	7 13 28	8 9 30	8 18 49	8 22 49	8 24 23
27	19 8	1 14 02	2 29 08	7 14 52	8 11 32	8 21 20	8 25 57	8 27 30
29	21 8	1 13 54	2 28 53	7 16 17	8 13 35	8 23 52	8 29 02	9 0 33
31	23 8	1 13 46	2 28 37	7 17 42	8 15 37	8 26 22	9 2 04	9 3 33
Jan. 2	25 8	1 13 39	2 28 22	7 19 07	8 17 39	8 28 53	9 5 01	9 6 26

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	4 22 32	4 23 48	1 R 3 47	5 6 50	3 R 12 7	23 2 53
February 1	4 20 26	4 22 9	1 3 18	5 R 6 34	3 11 23	23 2 58
March 1	4 20 7	4 20 40	1 D 3 35	5 5 59	3 10 50	23 3 0
April 1	4 20 9	4 19 2	1 4 37	5 5 8	3 10 26	23 3 3
May 1	4 18 50	4 17 26	1 6 8	5 4 25	3 D 10 25	23 3 6
June 1	4 15 42	4 15 48	1 7 56	5 4 4	3 10 50	23 3 10
July 1	4 12 42	4 14 12	1 9 34	5 D 4 11	3 11 32	23 3 15
August 1	4 11 23	4 12 34	1 10 52	5 4 46	3 12 22	23 3 20
September 1	4 11 28	4 10 55	1 11 30	5 5 45	3 13 13	23 3 23
October 1	4 11 5	4 9 20	1 R 11 21	5 6 51	3 13 52	23 3 25
November 1	4 8 51	4 7 41	1 10 30	5 7 56	3 14 9	23 3 29
December 1	4 5 29	4 6 6	1 9 17	5 8 41	3 R 14 3	23 3 33
January 1	4 2 49	4 4 27	1 8 6	5 9 0	3 13 35	23 3 36

Combustion or Heliacal Setting of Planets

Saturn	:	From May 10 to June 7.
Jupiter	:	From June 13 to July 8.
Mars	:	From Aug. 25 to Nov. 18.
Venus	:	From Jan. 30 to Feb. 7, Oct. 20 to Dec. 12.
Mercury	:	Up to Jan. 10 then from Apr. 10 to Apr. 30, June 5 to June 21, July 24 to Aug. 14, Oct. 5 to Oct. 17, Nov. 12 to Dec. 21.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Feb. 1,	6	40	10	3	59	Feb. 22,	17	42	9	18	34
	May 31,	28	42	2	2	35	June 24,	21	20	1	23	58
	Sept. 28,	21	30	6	2	57	Oct. 20,	5	32	5	17	33
Venus	Jan. 13,	6	45	9	28	8	Feb. 23,	11	41	9	12	29
Mars	—	—			—		—	—			—	
Jupiter	—	—			—		Feb. 5,	15	30	1	18	20
	Nov. 12,	19	35	3	2	11	—	—			—	
Saturn	—	—			—		Jan. 23,	11	50	0	28	35
	Sept. 25,	11	28	1	19	28	—	—			—	
Uranus	—	—			—		Feb. 3,	18	38	1	3	18
	Sept. 10,	10	0	1	11	32	—	—			—	
Neptune	Jan. 1,	11	12	5	6	50	June 8,	8	36	5	4	3
Pluto	—	—			—		Apr. 14,			3	10	27
	Nov. 6,			3	14	10	—	—			—	

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	17	3	2	Māgha	Sukla	Jan.	2	21	11	Māgha	Vadi
Feb.	15	15	32	Phālguna	"	Feb.	1	14	43	Phālguna	"
Mar.	17	5	20	Caitra	"	Mar.	3	5	51	Caitra	"
Apr.	15	20	3	Vaiśākha	"	Apr.	1	18	2	Vaiśākha	"
May	15	11	15	Jyaiṣṭha (*Mala*)	"	May	1	3	30	Jyaiṣṭha	"
June	14	2	31	Jyaiṣṭha	"	May	30	10	58	Jyaiṣṭha (*Adhika*)	"
July	13	17	31	Āṣāḍha	"	June	28	17	40	Āṣāḍha	"
Aug.	12	7	59	Śrāvaṇa	"	July	28	0	45	Śrāvaṇa	"
Sept.	10	21	23	Bhādra	"	Aug.	26	9	16	Bhādra	"
Oct.	10	9	36	Āśvina	"	Sept	24	20	4	Āśvina	"
Nov.	8	20	49	Kārtika	"	Oct.	24	9	36	Kārtika	"
Dec.	8	7	30	Agrahā	"	Nov.	23	1	53	Agrahā	"
						Dec.	22	20	34	Pauṣa	"

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	26	7	Karkaṭa	on	July	16	10	59
Kumbha	on	Feb.	12	15	8	Siṁha	on	Aug.	16	19	22
Mīna	on	Mar.	14	12	5	Kanyā	on	Sept.	16	19	14
Meṣa	on	Apr.	13	20	39	Tulā	on	Oct.	17	7	9
Vṛṣa	on	May	14	17	35	Vṛścika	on	Nov.	16	6	59
Mithuna	on	June	14	24	9	Dhanus	on	Dec.	15	21	31

1943 A.D. Longitude of Moon CONDENSED

Saka era 1864-65, Samvat 1999-2000 (Apr. 5, Oct. 30), B. S. 1349-50 (Apr. 15).
Kollam era 1118-19 (Aug. 17), 17 Subhānu (Apr. 5, Apr. 14).

Nirayana Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.

Date	Beng. Date	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec. 27	11 9	3 28 52	4 10 52	4 23 3	5 5 29	5 18 17	6 1 29	6 15 10
Jan. 3	18 9	6 29 20	7 13 57	7 28 58	8 14 12	8 29 30	9 14 41	9 29 36
10	25 9	10 14 7	10 28 11	11 11 48	11 24 59	0 7 48	0 20 18	1 2 34
17	3 10	1 14 38	1 25 36	2 8 28	2 20 18	3 2 8	3 13 59	3 25 54
24	10 10	4 7 55	4 20 3	5 2 22	5 14 55	5 27 44	6 10 54	6 24 26
31	17 10	7 8 22	7 22 42	8 7 24	8 22 21	9 7 27	9 22 33	10 7 28
Feb. 7	24 10	10 22 6	11 6 21	11 20 9	0 3 31	0 16 27	0 29 1	1 11 18
14	2 11	1 23 21	2 5 15	2 17 4	2 28 53	3 10 44	3 22 41	4 4 44
21	9 11	4 16 57	4 29 21	5 11 57	5 24 45	6 7 48	6 21 6	7 4 39
28	16 11	7 18 29	8 2 35	8 16 56	9 1 39	9 16 9	10 0 52	10 15 31
Mar. 7	23 11	10 29 59	11 14 10	11 28 0	0 11 26	0 24 28	1 7 7	1 19 27
14	30 11	2 1 32	2 13 27	2 25 16	3 7 5	3 18 58	4 1 0	4 13 12
21	7 12	4 25 39	5 8 21	5 21 18	6 4 30	6 17 56	7 1 33	7 15 21
28	14 12	7 29 17	8 13 20	8 27 29	9 11 42	9 25 58	10 10 14	10 24 26
Apr. 4	21 12	11 8 31	11 22 24	0 6 2	0 19 20	1 2 19	1 14 58	1 27 19
11	28 12	2 9 25	2 21 20	3 3 10	3 14 59	3 26 54	4 8 59	4 21 17
18	4 1	5 3 54	5 16 51	6 0 8	6 13 44	6 27 36	7 11 41	7 25 52
25	11 1	8 10 6	8 24 19	9 8 30	9 22 35	10 6 35	10 20 29	11 4 17
May 2	18 1	11 17 55	0 1 24	0 14 41	0 27 43	1 10 30	1 23 0	2 5 17
9	25 1	2 17 20	2 29 14	3 11 2	3 22 51	4 4 45	4 16 50	4 29 11
16	2 2	5 11 52	5 24 57	6 8 27	6 22 22	7 6 36	7 21 6	8 5 43
23	9 2	8 20 21	9 4 54	9 19 16	10 3 27	10 17 24	11 1 8	11 14 38
30	16 2	11 27 57	0 11 3	0 23 58	1 6 40	1 19 11	2 1 29	2 13 36
June 6	23 2	2 25 33	3 7 24	3 19 11	4 0 59	4 12 52	4 24 5[illegible]	5 7 16
13	30 2	5 19 56	6 3 2	6 16 35	7 0 36	7 15 2	7 29 47	8 14 44
20	5 3	8 29 44	9 14 38	9 29 20	10 13 44	10 27 49	11 11 33	11 24 58
27	12 3	0 8 5	0 20 57	1 3 35	1 16 0	1 28 15	2 10 20	2 22 17
July 4	19 3	3 4 9	3 15 56	3 27 43	4 9 31	4 21 25	5 3 30	5 15 49
11	26 3	5 28 28	6 11 30	6 24 59	7 8 56	7 23 19	8 8 6	8 23 10
18	1 4	9 8 21	9 23 30	10 8 29	10 23 9	11 7 27	11 21 19	0 4 48
25	8 4	0 17 53	1 0 38	1 13 6	1 25 21	2 7 24	2 19 20	3 1 10
Aug. 1	15 4	3 12 58	3 24 45	4 6 34	4 18 27	5 0 26	5 12 36	5 24 59
8	22 4	6 7 39	6 20 38	7 4 1	7 17 48	8 2 1	8 16 36	9 1 32
15	29 4	9 16 39	10 1 49	10 16 54	11 1 44	11 16 13	0 0 16	0 13 52
22	5 5	0 27 2	1 9 47	1 22 13	2 4 22	2 16 20	2 28 11	3 9 58
29	12 5	3 21 45	4 3 35	4 15 29	4 27 31	5 9 43	5 22 4	6 4 56
Sept. 5	19 5	6 17 26	7 0 30	7 13 51	7 27 31	8 11 30	8 25 49	9 10 26
12	26 5	9 25 15	10 10 12	10 25 8	11 9 55	11 24 25	0 8 32	0 22 14
19	2 6	1 5 28	1 18 17	2 0 44	2 12 54	2 24 50	3 6 39	3 18 26
26	9 6	4 0 15	4 12 9	4 24 13	5 6 27	5 18 54	6 1 33	6 14 26
Oct. 3	16 6	6 27 31	7 10 48	7 24 17	8 7 59	8 21 52	9 5 57	9 20 14
10	23 6	10 4 40	10 19 13	11 3 47	11 18 16	0 2 34	0 16 34	1 0 12
17	30 6	1 13 26	1 26 17	2 8 45	2 20 56	3 2 53	3 14 42	3 26 30
24	7 7	4 8 20	4 20 19	5 2 30	5 14 55	5 27 39	6 10 37	6 23 53
31	14 7	7 7 22	7 21 2	8 4 51	8 18 46	9 2 45	9 16 48	10 0 54
Nov. 7	21 7	10 15 2	10 29 11	11 13 18	11 27 20	0 11 14	0 24 54	1 8 18
14	28 7	1 21 23	2 4 7	2 16 33	2 28 43	3 10 40	3 22 30	4 4 18
21	5 8	4 16 9	4 28 8	5 10 22	5 22 54	6 5 46	6 19 0	7 2 36
28	12 8	7 16 28	8 0 35	8 14 51	8 29 10	9 13 29	9 27 44	10 11 58
Dec. 5	19 8	10 26 55	11 9 49	11 23 36	0 7 13	0 20 40	1 3 54	1 16 56
12	26 8	1 29 43	2 12 15	2 24 33	3 6 38	3 18 33	4 0 22	4 12 9
19	3 9	4 23 59	5 5 58	5 18 10	6 0 40	6 13 32	6 26 49	7 10 32
26	10 9	7 24 39	8 9 6	8 23 46	9 8 33	9 23 19	10 7 58	10 22 24
Jan. 2	17 9	11 6 35	11 20 30	0 4 8	0 17 29	1 0 36	1 13 28	1 26 7

Longitudes of Planets 1943 A.D.

Ayanamsa on 1st Jan. : 23° 03′ 36″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ बृ	मं ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	24	8	1R13 42	2R28 30	7 18 25	8 16 38	8 27 38	9 3 33	9 5 01
3	26	8	1 13 35	2 28 14	7 19 50	8 18 40	9 0 08	9 6 26	9 7 50
5	29	8	1 13 28	2 27 59	7 21 15	8 20 43	9 2 39	9 9 10	9 10 28
7	1	9	1 13 22	2 27 43	7 22 41	8 22 46	9 5 09	9 11 41	9 12 50
9	3	9	1 13 16	2 27 27	7 24 07	8 24 47	9 7 39	9 13 54	9 14 52
11	6	9	1 13 10	2 27 10	7 25 33	8 26 50	9 10 10	8 15 41	9 16 27
13	8	9	1 13 04	2 26 54	7 26 59	8 28 52	9 12 40	9 17 02	9 17 27
15	10	9	1 12 59	2 26 38	7 28 25	9 0 54	9 15 11	9 17 42	9R17 46
17	11	9	1 12 54	2 26 22	7 29 51	9 2 56	9 17 41	9 17 39	9 17 20
19	13	9	1 12 50	2 26 06	8 1 18	9 4 58	9 20 12	9 16 49	9 16 07
21	15	9	1 12 46	2 25 50	8 2 44	9 7 00	9 22 42	9 15 14	9 14 13
23	17	9	1 12 43	2 25 34	8 4 11	9 9 03	9 25 13	9 13 06	9 11 53
25	19	9	1 12 40	2 25 19	8 5 38	9 11 05	9 27 43	9 10 37	9 9 21
27	21	9	1 12 37	2 25 04	8 7 05	9 13 06	10 0 13	9 8 07	9 6 56
29	23	9	1 12 35	2 24 50	8 8 32	9 15 08	10 2 43	9 5 50	9 4 24
31	25	9	1 12 34	2 24 36	8 9 59	9 17 10	10 5 13	9 4 01	9 3 18
Feb. 2	27	9	1 12 33	2 24 22	8 11 26	9 19 12	10 7 43	9 2 44	9 2 19
4	29	9	1 12 32	2 24 09	8 12 54	9 21 14	10 10 13	9 2 02	9 1 53
6	2	10	1D12 31	2 23 56	8 14 22	9 23 16	10 12 43	9D1 52	9 1 58
8	4	10	1 12 32	2 23 44	8 15 50	9 25 17	10 15 12	9 2 11	9 2 31
10	6	10	1 12 32	2 23 33	8 17 18	9 27 19	10 17 42	9 2 56	9 3 27
12	8	10	1 12 33	2 23 22	8 18 46	9 29 20	10 20 11	9 4 03	9 4 43
14	10	10	1 12 35	2 23 12	8 20 14	10 1 21	10 22 40	9 5 27	9 6 15
16	12	10	1 12 37	2 23 02	8 21 42	10 3 23	10 25 09	9 7 07	9 8 02
18	13	10	1 12 39	2 22 53	8 23 10	10 5 24	10 27 38	9 9 00	9 10 00
20	15	10	1 12 42	2 22 45	8 24 39	10 7 25	11 0 07	9 11 03	9 12 09
22	17	10	1 12 45	2 22 38	8 26 08	10 9 26	11 2 36	9 13 17	9 14 27
24	19	10	1 12 49	2 22 32	8 27 37	10 11 26	11 5 04	9 15 39	9 16 52
26	21	10	1 12 53	2 22 26	8 29 06	10 13 27	11 7 33	9 18 08	9 19 24
28	23	10	1 12 58	2 22 21	9 0 35	10 15 28	11 10 01	9 20 43	9 22 03
Mar. 2	25	10	1 13 03	2 22 17	9 2 04	10 17 28	11 12 29	9 23 25	9 24 47
4	28	10	1 13 08	2 22 13	9 3 33	10 19 28	11 14 57	9 26 12	9 27 37
6	30	10	1 13 14	2 22 10	9 5 02	10 21 29	11 17 25	9 29 04	10 0 32
8	2	11	1 13 20	2 22 08	9 6 32	10 23 29	11 19 53	10 2 01	10 3 31
10	4	11	1 13 27	2 22 07	9 8 01	10 25 29	11 22 21	10 5 03	10 6 36
12	6	11	1 13 34	2 22D06	9 9 31	10 27 29	11 24 48	10 8 10	10 9 46
14	8	11	1 13 41	2 22 07	9 11 01	10 29 28	11 27 15	10 11 22	10 13 00
16	10	11	1 13 49	2 22 07	9 12 31	11 1 28	11 29 42	10 14 39	10 16 19
18	12	11	1 13 57	2 22 09	9 14 01	11 3 27	0 2 09	10 18 00	10 19 43
20	14	11	1 14 06	2 22 12	9 15 31	11 5 27	0 4 35	10 21 26	10 23 11
22	16	11	1 14 15	2 22 16	9 17 01	11 7 26	0 7 01	10 24 57	10 26 45
24	18	11	1 14 24	2 22 20	9 18 31	11 9 25	0 9 27	10 28 34	11 0 24
26	20	11	1 14 33	2 22 25	9 20 01	11 11 24	0 11 53	11 2 15	11 4 08
28	22	11	1 14 43	2 22 30	9 21 32	11 13 22	0 14 18	11 6 02	11 7 57
30	24	11	1 14 53	2 22 37	9 23 02	11 15 21	0 16 43	11 9 53	11 11 51
Apr. 1	26	11	1 15 03	2 22 44	9 24 32	11 17 20	0 19 08	11 13 50	11 15 50
3	28	11	1 15 14	2 22 52	9 26 02	11 19 18	0 21 33	11 17 52	11 19 54
5	1	12	1 15 25	2 23 00	9 27 33	11 21 16	0 23 58	11 21 57	11 24 01
7	3	12	1 15 37	2 23 09	9 29 03	11 23 14	0 26 22	11 26 06	11 28 11
9	5	12	1 15 49	2 23 19	10 0 34	11 25 12	0 28 46	0 0 16	0 2 21
11	7	12	1 16 01	2 23 30	10 2 04	11 27 10	1 1 09	0 4 26	0 6 31
13	8	12	1 16 12	2 23 41	10 3 35	11 29 08	1 3 33	0 8 34	0 10 36
15	10	12	1 16 24	2 23 53	10 5 05	0 1 05	1 5 56	0 12 36	0 14 35
17	12	12	1 16 37	2 24 05	10 6 36	0 3 03	1 8 18	0 16 31	0 18 24

***Ayanamsa* on 1st Jan. : 23° 03′ 36″**

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.17	12	12	1 16 37	2 24 05	10 6 36	0 3 03	1 8 18	0 16 31	0 18 24
19	14	12	1 16 50	2 24 18	10 8 06	0 5 00	1 10 41	0 20 15	0 22 03
21	16	12	1 17 03	2 24 32	10 9 37	0 6 57	1 13 03	0 23 47	0 25 27
23	18	12	1 17 16	2 24 46	10 11 08	0 8 54	1 15 24	0 27 03	0 28 36
25	20	12	1 17 30	2 25 00	10 12 39	0 10 51	1 17 46	1 0 04	1 1 27
27	23	12	1 17 44	2 25 15	10 14 10	0 12 48	1 20 07	1 2 46	1 4 01
29	25	12	1 17 58	2 25 31	10 15 40	0 14 45	1 22 27	1 5 11	1 6 16
May 1	27	12	1 18 12	2 25 47	10 17 10	0 16 41	1 24 47	1 7 16	1 8 11
3	29	12	1 18 26	2 26 04	10 18 40	0 18 38	1 27 07	1 9 01	1 9 46
5	1	1	1 18 40	2 26 21	10 20 11	0 20 34	1 29 26	1 10 26	1 11 01
7	3	1	1 18 55	2 26 39	10 21 41	0 22 30	2 1 45	1 11 30	1 11 54
9	5	1	1 19 09	2 26 57	10 23 11	0 24 26	2 4 04	1 12 13	1 12 27
11	7	1	1 19 24	2 27 16	10 24 41	0 26 22	2 6 22	1 12 36	1 12 39
13	9	1	1 19 39	2 27 35	10 26 11	0 28 18	2 8 39	1R12 38	1 12 32
15	10	1	1 19 54	2 27 54	10 27 41	1 0 14	2 10 56	1 12 21	1 12 06
17	12	1	1 20 09	2 28 14	10 29 11	1 2 10	2 13 12	1 11 47	1 11 24
19	15	1	1 20 24	2 28 34	11 0 41	1 4 05	2 15 28	1 10 58	1 10 29
21	17	1	1 20 39	2 28 55	11 2 11	1 6 01	2 17 43	1 9 58	1 9 26
23	19	1	1 20 54	2 29 16	11 3 40	1 7 56	2 19 58	1 8 52	1 8 17
25	21	1	1 21 09	2 29 37	11 5 10	1 9 51	2 22 12	1 7 43	1 7 10
27	23	1	1 21 25	2 29 58	11 6 39	1 11 46	2 24 25	1 6 38	1 6 07
29	26	1	1 21 40	3 0 20	11 8 08	1 13 42	2 26 37	1 5 39	1 5 13
31	28	1	1 21 56	3 0 42	11 9 37	1 15 37	2 28 49	1 4 51	1 4 32
June 2	30	1	1 22 11	3 1 05	11 11 06	1 17 32	3 1 00	1 4 17	1 4 06
4	2	2	1 22 27	3 1 28	11 12 34	1 19 27	3 3 10	1 3 59	1D 3 57
6	3	2	1 22 43	3 1 51	11 14 03	1 21 22	3 5 19	1 3 59	1 4 05
8	5	2	1 22 59	3 2 14	11 15 31	1 23 17	3 7 27	1 4 16	1 4 32
10	7	2	1 23 15	3 2 37	11 16 59	1 25 12	3 9 35	1 4 52	1 5 16
12	9	2	1 23 30	3 3 01	11 18 26	1 27 06	3 11 41	1 5 45	1 6 18
14	11	2	1 23 46	3 3 25	11 19 53	1 29 01	3 13 46	1 6 55	1 7 36
16	13	2	1 24 01	3 3 50	11 21 20	2 0 55	3 15 50	1 8 21	1 9 11
18	15	2	1 24 17	3 4 14	11 22 47	2 2 50	3 17 53	1 10 04	1 11 01
20	18	2	1 24 32	3 4 39	11 24 14	2 4 44	3 19 55	1 12 02	1 13 07
22	20	2	1 24 43	3 5 04	11 25 40	2 6 39	3 21 55	1 14 16	1 15 28
24	22	2	1 25 03	3 5 29	11 27 06	2 8 33	3 23 54	1 16 43	1 18 02
26	24	2	1 25 18	3 5 54	11 28 31	2 10 28	3 25 51	1 19 25	1 20 51
28	26	2	1 25 33	3 6 19	11 29 56	2 12 22	3 27 47	1 22 20	1 23 53
30	28	2	1 25 48	3 6 44	0 1 21	2 14 17	3 29 40	1 25 29	1 27 09
July 2	30	2	1 26 03	3 7 10	0 2 46	2 16 11	4 1 33	1 28 51	2 0 37
4	2	3	1 26 18	3 7 36	0 4 10	2 18 05	4 3 23	2 2 26	2 4 18
6	4	3	1 26 33	3 8 02	0 5 34	2 20 00	4 5 10	2 6 12	2 8 09
8	5	3	1 26 48	3 8 28	0 6 57	2 21 54	4 6 56	2 10 08	2 12 10
10	7	3	1 27 02	3 8 54	0 8 20	2 23 49	4 8 39	2 14 13	2 16 18
12	9	3	1 27 17	3 9 20	0 9 43	2 25 43	4 10 20	2 18 24	2 20 32
14	11	3	1 27 31	3 9 46	0 11 05	2 27 38	4 11 52	2 22 40	2 24 49
16	14	3	1 27 45	3 10 12	0 12 27	2 29 32	4 13 32	2 26 58	2 29 07
18	16	3	1 27 59	3 10 39	0 13 48	3 1 26	4 15 04	3 1 16	3 3 24
20	18	3	1 28 13	3 11 05	0 15 09	3 3 21	4 16 31	3 5 31	3 7 37
22	21	3	1 28 27	3 11 32	0 16 29	3 5 15	4 17 55	3 9 42	3 11 46
24	23	3	1 28 40	3 11 58	0 17 48	3 7 10	4 19 17	3 13 48	3 15 49
26	25	3	1 28 53	3 12 25	0 19 08	3 9 05	4 20 30	3 17 48	3 19 46
28	27	3	1 29 06	3 12 51	0 20 26	3 10 59	4 21 40	3 21 42	3 23 36
30	29	3	1 29 19	3 13 18	0 21 44	3 12 54	4 22 45	3 25 29	3 27 20
Aug. 1	30	3	1 29 32	3 13 44	0 23 01	3 14 49	4 23 45	3 29 10	4 0

***Ayanamsa* on 1st Jan. : 23° 03′ 36″**

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	30	3	1 29 32	3 13 44	0 23 01	3 14 49	4 23 45	3 29 10	4 0 58
3	2	4	1 29 44	3 14 11	0 24 18	3 16 44	4 24 39	4 2 44	4 4 28
5	4	4	1 29 56	3 14 37	0 25 34	3 18 39	4 25 26	4 6 11	4 7 53
7	6	4	2 0 08	3 15 04	0 26 49	3 20 34	4 26 06	4 9 32	4 11 10
9	8	4	2 0 20	3 15 30	0 28 03	3 22 29	4 26 39	4 12 47	4 14 22
11	10	4	2 0 31	3 15 57	0 29 17	3 24 24	4 27 04	4 15 55	4 17 27
13	12	4	2 0 43	3 16 23	1 0 30	3 26 19	4 27 21	4 18 57	4 20 25
15	15	4	2 0 54	3 16 50	1 1 42	3 28 14	4R27 29	4 21 52	4 23 17
17	17	4	2 1 04	3 17 16	1 2 54	4 0 09	4 27 27	4 24 41	4 26 03
19	19	4	2 1 14	3 17 42	1 4 04	4 2 05	4 27 17	4 27 23	4 28 41
21	21	4	2 1 24	3 18 08	1 5 13	4 4 00	4 26 56	4 29 57	5 1 12
23	23	4	2 1 34	3 18 34	1 6 22	4 5 56	4 26 26	5 2 25	5 3 35
25	25	4	2 1 43	3 19 00	1 7 30	4 7 51	4 25 47	5 4 44	5 5 50
27	27	4	2 1 52	3 19 26	1 8 36	4 9 47	4 25 00	5 6 54	5 7 56
29	29	4	2 2 01	3 19 52	1 9 42	4 11 43	4 24 04	5 8 55	5 9 51
31	1	5	2 2 09	3 20 17	1 10 46	4 13 39	4 23 01	5 10 45	5 11 36
Sept. 2	3	5	2 2 17	3 20 42	1 11 50	4 15 35	4 21 54	5 12 23	5 13 07
4	4	5	2 2 25	3 21 07	1 12 52	4 17 32	4 20 42	5 13 47	5 14 24
6	6	5	2 2 32	3 21 32	1 13 52	4 19 28	4 19 29	5 14 56	5 15 24
8	9	5	2 2 39	3 21 57	1 14 52	4 21 24	4 18 14	5 15 47	5 16 05
10	11	5	2 2 46	3 22 22	1 15 50	4 23 21	4 17 02	5 16 17	5 16 24
12	13	5	2 2 52	3 22 46	1 16 47	4 25 18	4 15 54	5 16R25	5 16 20
14	15	5	2 2 58	3 23 10	1 17 42	4 27 14	4 14 50	5 16 08	5 15 49
16	18	5	2 3 03	3 23 34	1 18 36	4 29 11	4 13 52	5 15 23	5 14 51
18	20	5	2 3 08	3 23 58	1 19 28	5 1 08	4 13 03	5 14 12	5 13 26
20	22	5	2 3 12	3 24 21	1 20 19	5 3 05	4 12 23	5 12 35	5 11 58
22	24	5	2 3 16	3 24 44	1 21 08	5 5 03	4 11 52	5 10 37	5 9 33
24	25	5	2 3 20	3 25 07	1 21 55	5 7 00	4 11 30	5 8 28	5 7 23
26	27	5	2 3 23	3 25 29	1 22 40	5 8 58	4 11 19	5 6 19	5 5 18
28	29	5	2 3 26	3 25 51	1 23 23	5 10 55	4 11D17	5 4 22	5 3 32
30	1	6	2 3 28	3 26 13	1 24 04	5 12 53	4 11 25	5 2 50	5 2 17
Oct. 2	3	6	2 3 30	3 26 35	1 24 43	5 14 51	4 11 41	5 1 53	5 1 40
4	5	6	2 3 32	3 26 56	1 25 20	5 16 49	4 12 06	5D1 37	5 1 45
6	7	6	2 3 33	3 27 17	1 25 54	5 18 48	4 12 40	5 2 03	5 2 31
8	9	6	2 3 33	3 27 38	1 26 25	5 20 46	4 13 21	5 3 08	5 3 54
10	11	6	2R3 34	3 27 58	1 26 54	5 22 45	4 14 10	5 4 49	5 5 50
12	14	6	2 3 33	3 28 18	1 27 20	5 24 43	4 15 04	5 6 57	5 8 11
14	16	6	2 3 33	3 28 37	1 27 44	5 26 42	4 16 06	5 9 30	5 10 53
16	18	6	2 3 32	3 28 56	1 28 06	5 28 41	4 17 13	5 12 21	5 13 51
18	20	6	2 3 30	3 29 15	1 28 24	6 0 40	4 18 26	5 15 24	5 16 58
20	22	6	2 3 28	3 29 33	1 28 39	6 2 39	4 19 44	5 18 35	5 20 13
22	24	6	2 3 25	3 29 51	1 28 52	6 4 38	4 21 06	5 21 52	5 23 32
24	26	6	2 3 22	4 0 08	1 29 01	6 6 38	4 22 33	5 25 12	5 26 53
26	27	6	2 3 19	4 0 24	1 29 08	6 8 37	4 24 04	5 28 34	6 0 15
28	29	6	2 3 15	4 0 40	1R29 10	6 10 37	4 25 39	6 1 56	6 3 37
30	1	7	2 3 11	4 0 56	1 29 09	6 12 37	4 27 17	6 5 18	6 6 58
Nov. 1	4	7	2 3 06	4 1 11	1 29 04	6 14 37	4 28 59	6 8 38	6 10 17
3	6	7	2 3 01	4 1 26	1 28 55	6 16 37	5 0 43	6 11 57	6 13 36
5	8	7	2 2 56	4 1 40	1 28 43	6 18 38	5 2 30	6 15 14	6 16 52
7	10	7	2 2 50	4 1 53	1 28 28	6 20 38	5 4 20	6 18 30	6 20 07
9	12	7	2 2 44	4 2 06	1 28 09	6 22 39	5 6 12	6 21 44	6 23 21
11	14	7	2 2 38	4 2 18	1 27 47	6 24 39	5 8 07	6 24 57	6 26 33
13	16	7	2 2 31	4 2 30	1 27 21	6 26 40	5 10 03	6 28 09	6 29 44
15	18	7	2 2 24	4 2 41	1 26 52	6 28 40	5 12 02	7 1 19	7 2 54

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	18 7	2 R2 24	4 2 41	1 26 R52	6 28 40	5 12 02	7 1 19	7 2 54
17	20 7	2 2 16	4 2 51	1 26 19	7 0 41	5 14 02	7 4 28	7 6 03
19	22 7	2 2 08	4 3 01	1 25 44	7 2 42	5 16 05	7 7 27	7 9 10
21	24 7	2 2 00	4 3 10	1 25 06	7 4 43	5 18 09	7 10 44	7 12 17
23	26 7	2 1 52	4 3 18	1 24 26	7 6 45	5 20 14	7 13 50	7 15 23
25	28 7	2 1 44	4 3 25	1 23 44	7 8 46	5 22 21	7 16 56	7 18 29
27	30 7	2 1 35	4 3 32	1 23 01	7 10 47	5 24 29	7 20 02	7 21 34
29	2 8	2 1 26	4 3 38	1 22 16	7 12 49	5 26 39	7 23 07	7 24 39
Dec. 1	4 8	2 1 17	4 3 44	1 21 31	7 14 51	5 28 49	7 26 11	7 27 43
3	6 8	2 1 05	4 3 48	1 20 45	7 16 52	6 1 01	7 29 14	8 0 46
5	9 8	2 0 58	4 3 52	1 19 59	7 18 54	6 3 13	8 2 17	8 3 48
7	11 8	2 0 49	4 3 55	1 19 14	7 20 56	6 5 27	8 5 19	8 6 49
9	13 8	2 0 39	4 3 57	1 18 29	7 22 58	6 7 42	8 8 19	8 9 49
11	15 8	2 0 29	4 3 59	1 17 46	7 24 59	6 9 57	8 11 18	8 12 46
13	17 8	2 0 19	4 4 00	1 17 03	7 27 01	6 12 13	8 14 13	8 15 40
15	19 8	2 0 09	4 R4 00	1 16 22	7 29 03	6 14 30	8 17 05	8 18 29
17	20 8	1 29 59	4 3 59	1 15 44	8 1 06	6 16 48	8 19 51	8 21 11
19	22 8	1 29 49	4 3 57	1 15 07	8 3 08	6 19 06	8 22 29	8 23 45
21	24 8	1 29 40	4 3 55	1 14 33	8 5 10	6 21 25	8 24 57	8 26 06
23	26 8	1 29 29	4 3 50	1 14 01	8 7 12	6 23 44	8 27 10	8 28 10
25	28 8	1 29 19	4 3 46	1 13 33	8 9 14	6 26 04	8 29 04	8 29 52
27	30 8	1 29 10	4 3 41	1 13 08	8 11 17	6 28 25	9 0 33	9 1 06
29	3 9	1 29 00	4 3 36	1 12 47	8 13 19	7 0 46	9 1 29	9 1 42
31	5 9	1 28 51	4 3 30	1 12 29	8 15 21	7 3 07	9 R1 45	9 1 37
Jan. 2	7 9	1 28 42	4 3 23	1 12 15	8 17 24	7 5 29	9 1 17	9 0 45

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	4 2 49	4 4 27	1 R 8 6	5 9 0	3 R13 35	23 3 36
February	1	4 1 54	4 2 49	1 7 31	5 R 8 47	3 12 54	23 3 40
March	1	4 1 56	4 1 20	1D 7 42	5 8 12	3 12 18	23 3 43
April	1	4 1 10	3 29 41	1 8 39	5 7 21	3 11 54	23 3 46
May	1	3 28 40	3 28 6	1 10 6	5 6 40	3D 11 53	23 3 49
June	1	3 25 20	3 26 27	1 11 53	5 6 15	3 12 14	23 3 53
July	1	3 23 16	3 24 52	1 13 35	5 D 6 19	3 12 54	23 3 58
August	1	3 22 53	3 23 14	1 14 57	5 6 53	3 13 45	23 4 3
September	1	3 22 56	3 21 36	1 15 42	5 7 50	3 14 37	23 4 7
October	1	3 21 41	3 20 0	1R 15 40	5 8 56	3 15 16	23 4 9
November	1	3 18 36	3 18 22	1 14 54	5 10 1	3 15 38	23 4 12
December	1	3 15 26	3 16 46	1 13 43	5 10 49	3 R15 30	23 4 17
January	1	3 13 45	3 15 7	1 12 29	5 11 10	3 15 5	23 4 22

Combustin or Heliacal Setting of Planets

Saturn	:	From May 23 to June 24.
Jupiter	:	From July 18 to Aug. 11.
Mars	:	— —
Venus	:	— —
Mercury	:	From Jan. 19 to Jan. 30, Mar. 22 to Apr. 17, May 15 to May 31, July 7 to July 29, Sept. 19 to Oct. 1, Oct. 23 to Dec. 2.

PLANET	RETROGRADE Date		h	m	Long. s	°	′	DIRECT Date		h	m	Long. s	°	′
Mercury	Jan.	15,	26	30	9	17	47	Feb.	5,	20	28	9	1	52
	May	12,	8	8	1	12	39	June	5,	6	50	1	3	57
	Sept.	11,	20	55	5	16	26	O.t.	3,	24	30	5	1	37
	Dec.	30,	23	50	9	1	45	—		—			—	
Venus	Aug.	15,	24	0	4	27	29	Sept.	27,	14	57	4	11	17
Mars	Oct.	28,	10	24	1	29	10	—		—			—	
Jupiter	—		--			—		Mar.	12,	8	29	2	22	6
	Dec.	13,	29	18	4	4	0	—		—			—	
Saturn	—		--			—		Feb.	7,	21	33	1	12	31
	Oct.	9,	23	39	2	3	34	—		—			—	
Uranus	—		--			—		Feb.	8,	7	26	1	7	30
	Sept.	15,	6	1	1	15	47	—		—			—	
Neptune	Jan.	4,	22	40	5	9	0	June	11,	10	18	5	6	31
Pluto	—		--			—		Apr.	16,			3	11	55
	Nov.	8,			3	15	40	—		—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	6	18	7	Pauṣa	Sukla	Jan.	21	16	19	Māgha	Vadi
Feb.	4	28	59	Māgha	,,	Feb.	20	11	15	Phālguna	,,
Mar.	6	16	4	Phālguna	,,	Mar.	21	27	33	Caitra	,,
Apr.	4	27	23	Caitra	,,	Apr.	20	16	42	Vaiśākha	,,
May	4	15	13	Vaiśākha	,,	May	19	26	43	Jyaiṣṭha	,,
June	2	28	3	Jyaiṣṭha	,,	June	18	10	44	Āṣāḍha	,,
July	2	18	14	Āṣāḍha	,,	July	17	17	51	Śrāvaṇa	,,
Aug.	1	9	26	Śrāvaṇa	,,	Aug.	15	25	4	Bhādra	,,
Aug.	30	25	29	Bhādra	,,	Sept.	14	9	10	Āśvina	,,
Sept.	29	16	59	Āśvina	,,	Oct.	13	18	53	Kārtika	,,
Oct.	29	7	20	Kārtika	,,	Nov.	12	6	57	Agrahā	,,
Nov.	27	20	53	Agrahā	,,	Dec.	11	21	54	Pauṣa	,,
Dec.	27	9	20	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	8	14	Karkaṭa	on	July	16	17	11
Kumbha	on	Feb.	12	21	13	Simha	on	Aug.	16	25	34
Mīna	on	Mar.	14	18	8	Kanyā	on	Sept.	16	25	28
Meṣa	on	Apr.	13	26	42	Tulā	on	Oct.	17	13	22
Vṛṣa	on	May	14	23	39	Vṛścika	on	Nov.	16	13	6
Mithuna	on	June	15	6	18	Dhanus	on	Dec.	15	27	41

Saka era 1865-66, Saṁvat 2000-01 (Mar. 25, Oct. 18), B.S. 1350-51 (Apr. 14),
Kollam era 1119-20 (Aug. 16), 18 Tārana (Mar. 25, Apr. 13)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec. 26	10	9	7	24	39	8	9	6	8	23	46	9	8	33	9	23	19	10	7	58	10	22	24
Jan. 2	17	9	11	6	35	11	20	30	0	4	8	0	17	29	1	0	36	1	13	28	1	26	7
9	24	9	2	8	34	2	20	50	3	2	56	3	14	54	3	26	46	4	8	34	4	20	22
16	2	10	5	2	12	5	14	10	5	26	20	6	8	46	6	21	33	7	4	44	7	18	22
23	9	10	8	2	27	8	16	58	9	1	49	9	16	53	10	2	1	10	17	4	11	1	54
30	16	10	11	16	24	0	0	31	0	14	14	0	27	33	1	10	30	1	23	9	2	5	33
Feb. 6	23	10	2	17	45	2	29	47	3	11	42	3	23	34	4	5	22	4	17	11	4	29	2
13	30	10	5	10	57	5	22	58	6	5	10	6	17	36	7	0	18	7	13	21	7	26	48
20	7	11	8	10	41	8	25	1	9	9	44	9	24	47	10	10	0	10	25	15	11	10	21
27	14	11	11	25	8	0	9	31	0	23	26	1	6	52	1	19	51	2	2	28	2	14	45
Mar. 5	21	11	2	26	49	3	8	44	3	20	33	4	2	20	4	14	9	4	26	1	5	7	57
12	28	11	5	20	1	6	2	12	6	14	33	6	27	5	7	9	51	7	22	53	8	6	14
19	6	12	8	19	55	9	3	59	9	18	25	10	3	12	10	18	12	11	3	20	11	18	24
26	13	12	0	3	15	0	17	45	1	1	48	1	15	21	1	28	26	2	11	6	2	23	25
Apr. 2	20	12	3	5	28	3	17	21	3	29	9	4	10	58	4	22	47	5	4	44	5	16	49
9	27	12	5	29	4	6	11	30	6	24	6	7	6	54	7	19	53	8	3	4	8	16	28
16	3	1	9	0	8	9	14	3	9	28	14	10	12	41	10	27	20	11	12	6	11	26	51
23	10	1	0	11	29	0	25	50	1	9	49	1	23	22	2	6	29	2	19	11	3	1	33
30	17	1	3	13	38	3	25	33	4	7	22	4	19	12	5	1	5	5	13	7	5	25	21
May 7	24	1	6	7	48	6	20	30	7	3	25	7	16	33	7	29	52	8	13	23	8	27	3
14	31	1	9	10	52	9	24	50	10	8	56	10	23	10	11	7	29	11	21	50	0	6	10
21	7	2	0	20	22	1	4	22	1	18	4	2	1	25	2	14	25	2	27	5	3	9	26
28	14	2	3	21	32	4	3	28	4	15	19	4	27	10	5	9	6	5	21	12	6	3	31
June 4	21	2	6	16	7	6	29	0	7	12	12	7	25	41	8	9	24	8	23	19	9	7	23
11	28	2	9	21	33	10	5	45	10	19	58	11	4	9	11	18	18	0	2	20	0	16	16
18	4	3	1	0	1	1	13	34	1	26	52	2	9	54	2	22	39	3	5	9	3	17	25
25	11	3	3	29	28	4	11	23	4	23	14	5	5	6	5	17	2	5	29	9	6	11	29
July 2	18	3	6	24	8	7	7	7	7	20	28	8	4	12	8	18	15	9	2	34	9	17	4
9	25	3	10	1	40	10	16	15	11	0	44	11	15	4	11	29	12	0	13	6	0	26	45
16	32	3	1	10	8	1	23	17	2	6	12	2	18	52	3	1	21	3	13	37	3	25	44
23	7	4	4	7	42	4	19	35	5	1	25	5	13	16	5	25	12	6	7	17	6	19	35
30	14	4	7	2	11	7	15	9	7	28	31	8	12	19	8	26	31	9	11	6	9	25	57
Aug. 6	21	4	10	10	56	10	25	56	11	10	47	11	25	23	0	9	40	0	23	35	1	7	7
13	28	4	1	20	18	2	3	11	2	15	48	2	28	11	3	10	24	3	22	28	4	4	26
20	4	5	4	16	19	4	28	10	5	10	0	5	21	52	6	3	48	6	15	52	6	28	9
27	11	5	7	10	40	7	23	32	8	6	48	8	20	30	9	4	40	9	19	16	10	4	15
Sept. 3	18	5	10	19	27	11	4	44	11	19	54	0	4	48	0	19	28	1	3	21	1	16	56
10	25	5	2	0	5	2	12	50	2	25	18	3	7	30	3	19	33	4	1	28	4	13	20
17	1	6	4	25	10	5	7	1	5	18	53	6	0	50	6	12	51	6	24	59	7	7	17
24	8	6	7	19	49	8	2	37	8	15	46	8	29	18	9	13	17	9	27	43	10	12	33
Oct. 1	15	6	10	27	41	11	12	59	11	28	15	0	13	18	0	27	59	1	12	12	1	25	54
8	22	6	2	9	7	2	21	54	3	4	20	3	16	30	3	28	28	4	10	20	4	22	9
15	29	6	5	3	59	5	15	53	5	27	51	6	9	55	6	22	6	7	4	25	7	16	53
22	5	7	7	29	32	8	12	25	8	25	33	9	9	0	9	22	46	10	6	59	10	21	31
29	12	7	11	6	22	11	21	23	0	6	27	0	21	23	1	6	2	1	20	17	2	4	4
Nov. 5	19	7	2	17	23	3	0	15	3	12	44	3	24	56	4	6	55	4	18	48	5	0	37
12	26	7	5	12	29	5	24	26	6	6	31	6	18	45	7	1	9	7	13	44	7	26	30
19	3	8	8	9	27	8	22	35	9	5	55	9	19	28	10	3	15	10	17	17	11	1	33
26	10	8	11	16	0	0	0	36	0	15	13	0	29	46	1	14	7	1	28	10	2	11	51
Dec. 3	17	8	2	25	8	3	8	2	3	20	35	4	2	51	4	14	54	4	26	48	5	8	39
10	24	8	5	20	33	6	2	32	6	14	41	6	27	3	7	9	39	7	22	30	8	5	37
17	2	9	8	18	57	9	2	31	9	16	15	10	0	8	10	14	8	10	28	14	11	12	25
24	9	9	11	26	37	0	10	49	0	24	58	1	9	0	1	22	52	2	6	30	2	19	53
31	16	9	3	2	59	3	15	47	3	28	18	4	10	34	4	22	38	5	4	34	5	16	27

Ayanamsa on 1st Jan. : 23° 04′ 22″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ व	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	6	9	1 R 28 47	4 R 3 26	1 R 12 21	8 16 23	7 4 18	9 R 1 37	9 1 17
3	8	9	1 28 37	4 3 19	1 12 09	8 18 25	7 6 41	9 0 45	9 0 01
5	10	9	1 28 28	4 3 11	1 11 58	8 20 27	7 9 03	8 29 06	8 28 02
7	12	9	1 28 20	4 3 02	1 11 51	8 22 29	7 11 26	8 26 51	8 25 34
9	14	9	1 28 11	4 2 53	1 11 48	8 24 32	7 13 50	8 24 15	8 22 55
11	16	9	1 28 03	4 2 43	1 11 D 47	8 26 34	7 16 13	8 21 38	8 20 24
13	18	9	1 27 55	4 2 32	1 11 50	8 28 36	7 18 37	8 19 16	8 18 16
15	20	9	1 27 47	4 2 21	1 11 55	9 0 38	7 21 02	8 17 25	8 16 44
17	21	9	1 27 40	4 2 09	1 12 04	9 2 41	7 23 27	8 16 12	8 15 50
19	23	9	1 27 34	4 1 57	1 12 15	9 4 43	7 25 51	8 15 38	8 D 34
21	25	9	1 27 27	4 1 44	1 12 29	9 6 45	7 28 16	8 15 38	8 15 50
23	27	9	1 27 21	4 1 30	1 12 46	9 8 47	8 0 41	8 16 09	8 16 34
25	30	9	1 27 15	4 1 16	1 13 05	9 10 49	8 3 06	8 17 05	8 17 42
27	2	10	1 27 09	4 1 02	1 13 26	9 12 51	8 5 32	8 18 24	8 19 10
29	4	10	1 27 04	4 0 47	1 13 50	9 14 53	8 7 58	8 20 00	8 20 53
31	7	10	1 27 00	4 0 33	1 14 17	9 16 55	8 10 24	8 21 50	8 22 50
Feb. 2	9	10	1 26 55	4 0 18	1 14 46	9 18 57	8 12 50	8 23 52	8 24 57
4	11	10	1 26 51	4 0 02	1 15 16	9 20 59	8 15 16	8 26 04	8 27 14
6	13	10	1 26 48	3 29 47	1 15 48	9 23 00	8 17 43	8 28 25	8 29 38
8	14	10	1 26 45	3 29 31	1 16 22	9 25 02	8 20 09	9 0 53	9 2 09
10	16	10	1 26 42	3 29 15	1 16 58	9 27 03	8 22 36	9 3 27	9 4 46
12	18	10	1 26 40	3 28 59	1 17 35	9 29 05	8 25 02	9 6 06	9 7 28
14	20	10	1 26 38	3 28 43	1 18 14	10 1 06	8 27 29	9 8 51	9 10 15
16	22	10	1 26 37	3 28 27	1 18 55	10 3 07	8 29 56	9 11 40	9 13 06
18	24	10	1 26 36	3 28 12	1 19 37	10 5 08	9 2 23	9 14 34	9 16 03
20	26	10	1 26 D 36	3 27 56	1 20 20	10 7 09	9 4 50	9 17 32	9 19 02
22	28	10	1 26 36	3 27 41	1 21 05	10 9 10	9 7 17	9 20 34	9 22 07
24	30	10	1 26 36	3 27 25	1 21 51	10 11 11	9 9 44	9 23 40	9 25 14
26	3	11	1 26 37	3 27 10	1 22 38	10 13 12	9 12 11	9 26 50	9 28 26
28	5	11	1 26 39	3 26 56	1 23 26	10 15 13	9 14 39	10 0 03	10 1 42
Mar. 1	7	11	1 26 41	3 26 41	1 24 15	10 17 13	9 17 06	10 3 21	10 5 02
3	9	11	1 26 43	3 26 27	1 25 05	10 19 13	9 19 34	10 6 43	10 8 26
5	11	11	1 26 46	3 26 14	1 25 57	10 21 14	9 22 01	10 10 09	10 11 54
7	13	11	1 26 49	3 26 02	1 26 49	10 23 14	9 24 29	10 13 40	10 15 27
9	15	11	1 26 53	3 25 49	1 27 42	10 25 14	9 26 56	10 17 15	10 19 04
11	16	11	1 26 57	3 25 37	1 28 36	10 27 13	9 29 24	10 20 54	10 22 46
13	18	11	1 27 02	3 25 26	1 29 31	10 29 13	10 1 51	10 24 38	10 26 32
15	20	11	1 27 07	3 25 15	2 0 26	11 1 13	10 4 19	10 28 27	11 0 23
17	22	11	1 27 12	3 25 05	2 1 22	11 3 12	10 6 46	11 2 20	11 4 18
19	24	11	1 27 18	3 24 55	2 2 19	11 5 11	10 9 14	11 6 17	11 8 16
21	26	11	1 27 24	3 24 46	2 3 17	11 7 11	10 11 41	11 10 16	11 12 17
23	29	11	1 27 30	3 24 38	2 4 15	11 9 10	10 14 09	11 14 18	11 16 20
25	1	12	1 27 37	3 24 31	2 5 13	11 11 09	10 16 37	11 18 21	11 20 22
27	3	12	1 27 45	3 24 24	2 6 13	11 13 08	10 19 05	11 22 23	11 24 23
29	6	12	1 27 52	3 24 18	2 7 13	11 15 06	10 21 32	11 26 21	11 28 17
31	8	12	1 28 00	3 24 13	2 8 13	11 17 05	10 24 00	0 0 12	0 2 04
Apr. 2	9	12	1 28 09	3 24 09	2 9 14	11 19 03	10 26 27	0 3 54	0 5 40
4	11	12	1 28 17	3 24 05	2 10 15	11 21 01	10 28 55	0 7 22	0 9 01
6	13	12	1 28 26	3 24 02	2 11 17	11 22 59	11 1 22	0 10 35	0 12 05
8	15	12	1 28 36	3 23 59	2 12 20	11 24 57	11 3 50	0 13 30	0 14 50
10	17	12	1 28 46	3 23 59	2 13 22	11 26 55	11 6 17	0 16 05	0 17 14
12	19	12	1 28 56	3 23 57	2 14 25	11 28 53	11 8 45	0 18 17	0 19 14
14	21	12	1 29 07	3 23 D 57	2 15 29	0 0 50	11 11 12	0 20 06	0 20 51
16	23	12	1 29 17	3 23 58	2 16 33	0 2 48	11 13 40	0 21 31	0 22 04

1944 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 04′ 22″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ल			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.16	23	12	1	29	17	3	23	58	2	16	53	0	2	48	11	13	40	0	21	31	0	22	04
18	25	12	1	29	28	3	23	59	2	17	37	0	4	45	11	16	07	0	22	32	0	22	53
20	27	12	1	29	40	3	24	01	2	18	42	0	6	42	11	18	35	0	23	08	0	23	17
22	30	12	1	29	51	3	24	04	2	19	47	0	8	39	11	21	02	0	23R	20	0	23	17
24	2	1	2	0	03	3	24	08	2	20	52	0	10	36	11	23	30	0	23	09	0	22	55
26	4	1	2	0	15	3	24	12	2	21	57	0	12	33	11	25	57	0	22	37	0	22	14
28	6	1	2	0	27	3	24	17	2	23	03	0	14	30	11	28	25	0	21	47	0	21	17
30	8	1	2	0	40	3	24	23	2	24	10	0	16	26	0	0	52	0	20	44	0	20	09
May 2	10	1	2	0	52	3	24	29	2	25	16	0	18	23	0	3	20	0	19⊙	32	0	18	54
4	11	1	2	1	05	3	24	36	2	26	23	0	20	19	0	5	47	0	18	15	0	17	37
6	13	1	2	1	19	3	24	44	2	27	30	0	22	15	0	8	15	0	17	01	0	16	26
8	15	1	2	1	32	3	24	53	2	28	37	0	24	11	0	10	42	0	15	53	0	15	23
10	17	1	2	1	46	3	25	03	2	29	45	0	26	07	0	13	09	0	14	56	0	14	33
12	19	1	2	2	00	3	25	12	3	0	52	0	28	03	0	15	36	0	14	14	0	13	59
14	21	1	2	2	14	3	25	22	3	2	00	0	29	59	0	18	04	0	13	49	0	13	43
16	23	1	2	2	28	3	25	33	3	3	09	1	1	55	0	20	31	0	D13	42	0	13	45
18	26	1	2	2	42	3	25	45	3	4	17	1	3	50	0	22	59	0	13	53	0	14	05
20	28	1	2	2	57	3	25	58	3	5	26	1	5	46	0	25	26	0	14	22	0	14	43
22	30	1	2	3	11	3	26	10	3	6	34	1	7	41	0	27	53	0	15	08	0	15	38
24	2	2	2	3	26	3	26	23	3	7	43	1	9	37	1	0	20	0	16	12	0	16	49
26	4	2	2	3	40	3	26	37	3	8	53	1	11	32	1	2	48	0	17	31	0	18	16
28	6	2	2	3	55	3	26	52	3	10	02	1	13	27	1	5	15	0	19	05	0	19	58
30	8	2	2	4	10	3	27	07	3	11	12	1	15	22	1	7	42	0	20	54	0	21	53
June 1	10	2	2	4	25	3	27	22	3	12	22	1	17	17	1	10	09	0	22	55	0	24	01
3	12	2	2	4	41	3	27	38	3	13	32	1	19	12	1	12	37	0	25	10	0	26	22
5	14	2	2	4	56	3	27	55	3	14	42	1	21	07	1	15	04	0	27	37	0	28	55
7	16	2	2	5	12	3	28	11	3	15	52	1	23	02	1	17	31	1	0	16	1	1	40
9	18	2	2	5	27	3	28	28	3	17	03	1	24	56	1	19	58	1	3	07	1	4	36
11	20	2	2	5	42	3	28	46	3	18	13	1	26	51	1	22	26	1	6	08	1	7	44
13	22	2	2	5	57	3	29	05	3	19	24	1	28	46	1	24	53	1	9	22	1	11	03
15	24	2	2	6	13	3	29	23	3	20	36	2	0	40	1	27	21	1	12	43	1	14	32
17	27	2	2	6	29	3	29	42	3	21	47	2	2	35	1	29	48	1	16	21	1	18	13
19	29	2	2	6	45	4	0	01	3	22	59	2	4	29	2	2	15	1	20	07	1	22	03
21	1	3	2	7	00	4	0	21	3	24	10	2	6	24	2	4	42	1	24	02	1	26	03
23	3	3	2	7	16	4	0	41	3	25	22	2	8	19	2	7	10	1	28	07	2	0	12
25	5	3	2	7	31	4	1	02	3	26	33	2	10	13	2	9	37	2	2	18	2	4	26
27	6	3	2	7	47	4	1	22	3	27	45	2	12	07	2	12⊙	05	2	6	35	2	8	45
29	8	3	2	8	02	4	1	43	3	28	58	2	14	02	2	14	32	2	10	56	2	13	07
July 1	10	3	2	8	18	4	2	05	4	0	10	2	15	56	2	17	00	2	15	17	2	17	28
3	12	3	2	8	33	4	2	27	4	1	23	2	17	51	2	19	27	2	19	38	2	21	47
5	14	3	2	8	49	4	2	49	4	2	35	2	19	45	2	21	55	2	23	58	2	26	03
7	16	3	2	9	04	4	3	11	4	3	48	2	21	39	2	24	22	2	23	09	3	0	13
9	19	3	2	9	20	4	3	33	4	5	00	2	23	34	2	26	50	3	2	16	3	4	17
11	21	3	2	9	35	4	3	56	4	6	13	2	25	28	2	29	17	3	6	17	3	8	15
13	23	3	2	9	51	4	4	20	4	7	27	2	27	22	3	1	45	3	10	11	3	12	05
15	25	3	2	10	06	4	4	43	4	8	40	2	29	17	3	4	13	3	13	57	3	15	48
17	27	3	2	10	21	4	5	07	4	9	54	3	1	11	3	6	41	3	17	36	3	19	23
19	29	3	2	10	36	4	5	30	4	11	08	3	3	06	3	9	08	3	21	08	3	22	51
21	1	4	2	10	50	4	5	54	4	12	22	3	5	01	3	11	36	3	24	32	3	26	12
23	3	4	2	11	05	4	6	18	4	13	36	3	6	55	3	14	03	3	27	49	3	29	25
25	5	4	2	11	19	4	6	42	4	14	50	3	8	50	3	16	31	4	0	59	4	2	31
27	7	4	2	11	34	4	7	07	4	16	05	3	10	44	3	18	59	4	4	01	4	5	30
29	9	4	2	11	48	4	7	31	4	17	19	3	12	39	3	21	27	4	6	56	4	8	20
31	11	4	2	12	02	4	7	56	4	18	34	3	14	34	3	23	55	4	9	43	4	11	04

***Ayanamsa* on 1st Jan. : 23° 04' 22"**

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
July 31	11	4	2 12 02	4 7 56	4 18 34	3 14 34	3 23 55	4 9 44	4 11 04
Aug. 2	13	4	2 12 16	4 8 21	4 19 48	3 16 29	3 26 23	4 12 22	4 13 39
4	15	4	2 12 29	4 8 46	4 21 03	3 18 24	3 28 50	4 14 53	4 16 05
6	17	4	2 12 43	4 9 11	4 22 19	3 20 18	4 1 18	4 17 15	4 18 23
8	20	4	2 12 56	4 9 36	4 23 34	3 22 13	4 3 46	4 19 28	4 20 30
10	22	4	2 13 10	4 10 02	4 24 50	3 24 08	4 6 14	4 21 30	4 22 28
12	24	4	2 13 23	4 10 27	4 26 05	3 26 04	4 8 42	4 23 22	4 24 13
14	26	4	2 13 35	4 10 53	4 27 21	3 27 59	4 11 10	4 25 01	4 25 46
16	28	4	2 13 48	4 11 19	4 28 37	3 29 54	4 13 38	4 26 28	4 27 05
18	30	4	2 14 00	4 11 45	4 29 53	4 1 50	4 16 06	4 27 38	4 28 08
20	2	5	2 14 12	4 12 10	5 1 09	4 3 45	4 18 34	4 28 33	4 28 53
22	3	5	2 14 24	4 12 36	5 2 25	4 5 41	4 21 02	4 29 08	4 29 18
24	5	5	2 14 35	4 13 02	5 3 42	4 7 36	4 23 30	4 29 23	4 R 22
26	7	5	2 14 47	4 13 28	5 4 58	4 9 32	4 25 58	4 29 16	4 29 03
28	9	5	2 14 58	4 13 54	5 6 15	4 11 28	4 28 26	4 28 44	4 28 20
30	11	5	2 15 08	4 14 20	5 7 33	4 13 24	5 0 54	4 27 49	4 27 12
Sept. 1	13	5	2 15 18	4 14 46	5 8 50	4 15 20	5 3 21	4 26 30	4 25 43
3	16	5	2 15 28	4 15 12	5 10 08	4 17 16	5 5 49	4 24 52	4 23 57
5	18	5	2 15 38	4 15 38	5 11 25	4 19 13	5 8 17	4 23 00	4 22 01
7	20	5	2 15 48	4 16 04	5 12 43	4 21 09	5 10 45	4 21 02	4 20 04
9	22	5	2 15 56	4 16 30	5 14 01	4 23 06	5 13 13	4 19 08	4 18 16
11	24	5	2 16 05	4 16 56	5 15 19	4 25 02	5 15 41	4 17 30	4 16 49
13	26	5	2 16 14	4 17 22	5 16 38	4 26 59	5 18 08	4 16 16	4 15 50
15	28	5	2 16 22	4 17 48	5 17 56	4 28 56	5 20 36	4 15 34	4 15 26
17	30	5	2 16 30	4 18 14	5 19 15	5 0 53	5 23 04	4 D 28	4 15 40
19	2	6	2 16 38	4 18 40	5 20 33	5 2 50	5 25 32	4 16 01	4 16 32
21	4	6	2 16 45	4 19 05	5 21 52	5 4 48	5 27 59	4 17 11	4 16 59
23	6	6	2 16 51	4 19 31	5 23 12	5 6 45	6 0 27	4 18 55	4 19 58
25	7	6	2 16 57	4 19 56	5 24 31	5 8 43	6 2 54	4 21 08	4 22 24
27	10	6	2 17 03	4 20 22	5 25 51	5 10 40	6 5 22	4 23 46	4 25 12
29	12	6	2 17 08	4 20 47	5 27 11	5 12 38	6 7 49	4 26 43	4 28 17
Oct. 1	14	6	2 17 13	4 21 12	5 28 31	5 14 36	6 10 17	4 29 53	5 1 33
3	16	6	2 17 18	4 21 37	5 29 51	5 16 34	6 12 44	5 3 14	5 4 57
5	19	6	2 17 22	4 22 01	6 1 11	5 18 32	6 15 12	5 6 41	5 8 26
7	21	6	2 17 26	4 22 26	6 2 32	5 20 31	6 17 39	5 10 11	5 11 57
9	23	6	2 17 30	4 22 50	6 3 52	5 22 29	6 20 07	5 13 43	5 15 28
11	25	6	2 17 33	4 23 14	6 5 13	5 24 28	6 22 34	5 17 14	5 18 59
13	27	6	2 17 35	4 23 38	6 6 35	5 26 27	6 25 01	5 20 44	5 22 29
15	28	6	2 17 37	4 24 02	6 7 56	5 28 25	6 27 28	5 24 13	5 25 57
17	30	6	2 17 39	4 24 26	6 9 18	6 0 25	6 29 55	5 27 40	5 29 23
19	2	7	2 17 40	4 24 49	6 10 39	6 2 24	7 2 22	6 1 05	6 2 46
21	4	7	2 17 41	4 25 12	6 12 01	6 4 23	7 4 49	6 4 27	6 6 07
23	6	7	2 17 41	4 25 35	6 13 23	6 6 23	7 7 16	6 7 46	6 9 25
25	8	7	2 17 R 41	4 25 57	6 14 45	6 8 22	7 9 42	6 11 04	6 12 42
27	10	7	3 17 40	4 26 19	6 16 08	6 10 22	7 12 10	6 14 19	6 15 56
29	12	7	2 17 39	4 26 41	6 17 30	6 12 22	7 14 36	6 17 32	6 19 08
31	15	7	2 17 37	4 27 02	6 18 53	6 14 22	7 17 03	6 20 43	6 22 18
Nov. 2	17	7	2 17 35	4 27 24	6 20 16	6 16 22	7 19 29	6 23 52	6 25 26
4	19	7	2 17 33	4 27 45	6 21 39	6 18 22	7 21 56	6 26 59	6 28 32
6	21	7	2 17 30	4 28 05	6 23 03	6 20 22	7 24 22	7 0 05	7 1 38
8	23	7	2 17 27	4 28 25	6 24 27	6 22 23	7 26 48	7 3 10	7 4 41
10	25	7	2 17 23	4 28 45	6 25 51	6 24 23	7 29 14	7 6 12	7 7 43
12	27	7	2 17 19	4 29 04	6 27 15	6 26 24	8 1 41	7 9 14	7 10 44
14	29	7	2 17 15	4 29 22	6 28 39	6 28 25	8 4 07	7 12 14	7 13 44

Longitudes of Planets

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			♄ श नि	बृ ♃ ह	मं ♂ ग	र ☉ वि	शु ♀ क	बु ☿ ध	☿ 2nd day.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	29	7	2 *R*17 15	4 29 22	6 28 ⊙39	6 28 25	8 4 07	7 12 14	7 13 44
16	1	8	2 17 10	4 29 41	7 0 04	7 0 26	8 6 32	7 15 13	7 16 41
18	3	8	2 17 04	4 29 59	7 1 28	7 2 27	8 8 58	7 18 10	7 19 38
20	5	8	2 16 59	5 0 16	7 2 53	7 4 28	8 11 23	7 21 05	7 22 32
22	7	8	2 16 53	5 0 33	7 4 18	7 6 29	8 13 49	7 23 58	7 25 23
24	9	8	2 16 46	5 0 50	7 5 43	7 8 30	8 16 14	7 26 48	7 28 12
26	11	8	2 16 39	5 1 06	7 7 09	7 10 32	8 18 39	7 29 35	8 0 56
28	13	8	2 16 32	5 1 21	7 8 35	7 12 33	8 21 04	8 2 16	8 3 35
30	15	8	2 16 25	5 1 36	7 10 01	7 14 35	8 23 29	8 4 53	8 6 08
Dec. 2	18	8	2 16 17	5 1 51	7 11 27	7 16 36	8 25 54	8 7 21	8 8 31
4	20	8	2 16 09	5 2 05	7 12 53	7 18 38	8 28 18	8 9 38	8 10 42
6	21	8	2 16 01	5 2 18	7 14 20	7 20 40	9 0 42	8 11 41	8 12 36
8	23	8	2 15 53	5 2 31	7 15 46	7 22 42	9 3 06	8 13 26	8 14 10
10	25	8	2 15 44	5 2 43	7 17 13	7 24 44	9 5 29	8 14 48	8 15 18
12	27	8	2 15 35	5 2 55	7 18 40	7 26 46	9 7 52	8 15 39	8 15 51
14	29	8	2 15 26	5 3 06	7 20 07	7 28 48	9 10 15	8 15 R52	8 15 42
16	1	9	2 15 16	5 3 16	7 21 35	8 0 50	9 12 38	8 15 21	8 14 49
18	3	9	2 15 07	5 3 25	7 23 02	8 2 52	9 15 00	8 14 06	8 13 12
20	5	9	2 14 57	5 3 34	7 24 30	8 4 54	9 17 22	8 12 07	8 10 54
22	7	9	2 14 47	5 3 43	7 25 58	8 6 57	9 19 43	8 9 36	8 8⊙15
24	9	9	2 14 37	5 3 50	7 27 26	8 8 59	9 22 04	8 6 53	8 5 33
26	12	9	2 14 28	5 3 57	7 28 55	8 11 01	9 24 25	8 4 18	8 3 09
28	14	9	2 14 18	5 4 03	8 0 23	8 13 03	9 26 45	8 2 08	8 1 16
30	16	9	2 14 08	5 4 08	8 1 52	8 15 06	9 29 04	8 0 35	8 0 05
Jan. 1	18	9	2 13 58	5 4 13	8 3 20	8 17 08	10 1 23	7 29 45	7 29 35

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	3 13 43	3 15 7	1 *R*12 29	5 11 10	3 *R*15 5	23 4 22
February	1	3 13 39	3 13 28	1 11 48	5 R10 59	3 14 24	23 4 26
March	1	3 13 21	3 11 56	1 D11 53	5 10 25	3 13 47	23 4 30
April	1	3 11 18	3 10 17	1 12 44	5 9 35	3 13 22	23 4 33
May	1	3 8 4	3 8 42	1 14 9	5 8 50	3 D13 20	23 4 36
June	1	3 5 23	3 7 4	1 15 56	5 8 24	3 13 43	23 4 40
July	1	3 4 29	3 5 29	1 17 36	5 D 8 29	3 14 23	23 4 45
August	1	3 4 30	3 3 49	1 19 5	5 9 1	3 15 15	23 4 50
September	1	3 3 56	3 2 11	1 19 56	5 9 57	3 16 9	23 4 54
October	1	3 1 38	3 0 36	1 R20 0	5 11 3	3 16 48	23 4 57
November	1	2 28 9	2 28 57	1 19 17	5 12 9	3 17 09	23 5 0
December	1	2 25 48	2 27 22	1 18 7	5 12 57	3 R17 5	23 5 4
January	1	2 25 15	2 25 43	1 16 53	5 13 21	3 16 38	23 5 9

Combustion or Heliacal Setting of Planets

Saturn	:	From June 6 to July 7.
Jupiter	:	From Aug. 18 to Sept. 12.
Mars	:	From Oct. 1 to Dec. 31.
Venus	:	From June 5 to July 19.
Mercury	:	From Jan. 3 to Jan. 14, Mar. 4 to Mar. 30, Apr. 25 to May 10, June 21 to July 12, Sept. 1 to Sept. 13, Oct. 5, to Nov. 10, Dec. 17 to Dec. 28.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°				h	m.	s	°	′
Mercury	—		—			—		Jan.	19.	28	10	8	15	34
	Apr.	22,	6	11	0	23	20	May	15.	25	11	0	13	42
	Aug.	24,	13	52	4	29	24	Sept.	16	12	25	4	15	25
	Dec.	13,	21	25	8	15	53	—		—			—	
Venus	—		—			—		—		—			—	
Mars	—		—			—		Jan.	10	10	30	1	11	47
Jupiter	—		—			—		Apr.	13	7	17	3	23	57
Saturn	—		—			—		Feb.	20	19	16	1	26	36
	Oct.	23,	11	22	2	17	41	—		—			—	
Uranus	—		—			—		Feb.	11	22	52	1	11	45
	Sept.	18,	19	50	1	20	4	—		—			—	
Neptune	Jan.	6,	18	0	5	11	10	June	12,	21	30	5	8	23
Pluto	—		—			—		Apr.	18,			3	13	24
	Nov.	10,	—		3	17	12	—		—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	25	20	54	Māgha	Sukla	Jan.	10	15	39	Māgha	Vadi
Feb.	24	7	29	Phālguna	,,	Feb.	9	10	59	Phālguna	,,
Mar.	24	17	6	Caitra	,,	Mar.	10	5	58	Caitra	,,
Apr.	22	26	13	Vaiśākha	,,	Apr.	8	22	52	Vaiśākha	,,
May	22	11	42	Jyaiṣṭha	,,	May	8	12	58	Jyaiṣṭha	,,
June	20	22	30	Āṣāḍha	,,	June	6	24	28	Āṣaḍha	,,
July	20	11	13	Śravaṇa	,,	July	6	9	57	Śravaṇa	,,
Aug.	18	25	55	Bhādra	,,	Aug.	4	18	9	Bhādra	,,
Sept.	17	18	7	Āśvina	,,	Sept.	2	25	51	Āśvina	,,
Oct.	17	11	5	Kārtika	,,	Oct.	2	9	52	Kārtika	,,
Nov.	15	27	59	Agrahā	,,	Oct.	31	19	5	Agrahā	,,
Dec.	15	20	5	Pauṣa	,,	Nov.	30	6	22	Pauṣa	,,
						Dec.	29	20	8	Māgha	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	14	22	Karkaṭa	on	July	15	23	28
Kumbha	on	Feb.	12	27	20	Siṁha	on	Aug.	16	7	50
Mina	on	Mar.	13	24	16	Kanyā	on	Sept.	16	7	42
Meṣa	on	Apr.	13	8	51	Tulā	on	Oct.	16	19	33
Vṛṣa	on	May	14	5	51	Vṛścika	on	Nov.	15	19	14
Mithuna	on	June	14	12	33	Dhanus	on	Dec.	15	9	48

1945 A.D. Longitude of Moon CONDENSED

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Saka era 1866-67, Saṁvat 2001-02 (Mar. 15, Nov. 5), B. S. 1351-52 (Apr. 14), Kollam era 1120-21 (Aug. 17), 19 Pārthiva (Mar. 15, Apr. 13).

Nirayana Long. of Moon (च) ट) at 5-30 A.M. I.S.T.

Date	Beng. Date	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 31	16 9	3 2 59	3 15 47	3 28 18	4 10 34	4 22 38	5 4 34	5 16 27
Jan. 7	23 9	5 28 20	6 10 19	6 22 28	7 4 52	7 17 33	8 0 34	8 13 56
14	1 10	8 27 39	9 11 38	9 25 52	10 10 15	10 24 41	11 9 6	11 23 26
21	8 10	0 7 37	0 21 38	1 5 27	1 19 3	2 2 27	2 15 38	2 28 37
28	15 10	3 11 23	3 23 57	4 6 20	4 18 31	5 0 33	5 12 29	5 24 22
Feb. 4	22 10	6 6 14	6 18 11	7 0 17	7 12 37	7 25 16	8 8 18	8 21 44
11	29 10	9 5 37	9 19 54	10 4 32	10 19 22	11 4 18	11 19 10	0 3 51
18	6 11	0 18 14	1 2 18	1 16 1	1 29 24	2 12 30	2 25 21	3 7 58
25	13 11	3 20 25	4 2 44	4 14 54	4 26 58	5 8 56	5 20 50	6 2 42
Mar. 4	20 11	6 14 34	6 26 30	7 8 34	7 20 50	8 3 23	8 16 19	8 29 40
11	27 11	9 13 31	9 27 50	10 12 36	10 27 41	11 12 56	11 28 10	0 13 12
18	4 12	0 27 54	1 12 10	1 26 0	2 9 23	2 22 28	3 5 4	3 17 30
25	11 12	3 29 45	4 11 51	4 23 51	5 5 48	5 17 42	5 29 34	6 11 27
Apr. 1	18 12	6 28 21	7 5 20	7 17 26	7 29 42	8 12 13	8 25 4	9 8 19
8	25 12	9 22 1	10 6 12	10 20 50	11 5 52	11 21 8	0 6 28	0 21 41
15	2 1	1 6 35	1 21 3	2 5 3	2 18 34	3 1 38	3 14 20	3 26 43
22	9 1	4 8 53	4 20 54	5 2 49	5 14 41	5 26 33	6 8 27	6 20 23
29	16 1	7 2 24	7 14 31	7 26 45	8 9 9	8 21 46	9 4 40	9 17 53
May 6	23 1	10 1 29	10 15 30	10 29 55	11 14 41	11 29 43	0 14 51	0 29 56
13	30 1	1 14 47	1 29 18	2 13 23	2 27 0	3 10 11	3 22 57	4 5 24
20	6 2	4 17 35	4 29 35	5 11 30	5 23 21	6 5 14	6 17 11	6 29 13
27	13 2	7 11 23	7 23 41	8 6 10	8 18 50	9 1 42	9 14 48	9 28 10
June 3	20 2	10 11 49	10 25 45	11 9 59	11 24 27	0 9 7	0 23 52	1 8 35
10	27 2	1 23 9	2 7 28	2 21 27	3 5 3	3 18 15	4 1 4	4 13 34
17	3 3	4 25 48	5 7 51	5 19 46	6 1 39	6 13 33	6 25 33	7 7 41
24	10 3	7 20 0	8 2 33	8 15 19	8 28 19	9 11 33	9 25 1	10 8 42
July 1	17 3	10 22 34	11 6 37	11 20 47	0 5 4	0 19 24	1 3 44	1 17 59
8	24 3	2 2 8	2 16 4	2 29 45	3 13 9	3 26 15	4 9 2	4 21 31
15	31 3	5 3 46	5 15 49	5 27 45	6 9 38	6 21 33	7 3 34	7 15 46
22	6 4	7 28 12	8 10 55	8 23 57	9 7 19	9 20 58	10 4 53	10 19 0
29	13 4	11 3 15	11 17 34	0 1 52	0 16 6	1 0 14	1 14 15	1 28 6
Aug. 5	20 4	2 11 48	2 25 19	3 8 37	3 21 43	4 4 34	4 17 12	4 29 35
12	27 4	5 11 47	5 23 48	6 5 42	6 17 34	6 29 27	7 11 27	7 23 38
19	2 5	8 6 6	8 18 54	9 2 6	9 15 43	9 29 43	10 14 3	10 28 38
26	9 5	11 13 20	11 28 2	0 12 37	0 27 0	1 11 7	1 24 59	2 8 35
Sept. 2	16 5	2 21 57	3 5 6	3 18 2	4 0 47	4 13 22	4 25 46	5 8 1
9	23 5	5 20 6	6 2 3	6 13 55	6 25 44	7 7 35	7 19 32	8 1 40
16	30 5	8 14 5	8 26 51	9 10 4	9 23 45	10 7 55	10 22 30	11 7 25
23	6 6	11 22 30	0 7 36	0 22 32	1 7 11	1 21 29	2 5 24	2 18 56
30	13 6	3 2 8	3 15 4	3 27 45	4 10 14	4 22 33	5 4 45	5 16 49
Oct. 7	20 6	5 28 46	6 10 39	6 22 29	7 4 18	7 16 8	7 28 4	8 10 11
14	27 6	8 22 32	9 5 14	9 18 20	10 1 56	10 16 1	11 0 36	11 15 35
21	4 7	0 0 50	0 16 9	1 1 22	1 16 18	2 0 52	2 14 58	2 28 37
28	11 7	3 11 52	3 24 44	4 7 19	4 19 39	5 1 49	5 13 50	5 25 46
Nov. 4	18 7	6 7 39	6 19 29	7 1 19	7 13 11	7 25 5	8 7 6	8 19 17
11	25 7	9 1 40	9 14 21	9 27 22	10 10 49	10 24 43	11 9 5	11 23 51
18	2 8	0 8 56	0 24 10	1 9 24	1 24 28	2 9 11	2 23 30	3 7 21
25	9 8	3 20 45	4 3 43	4 16 20	4 28 39	5 10 46	5 22 43	6 4 35
Dec. 2	16 8	6 16 24	6 28 14	7 10 8	7 22 6	8 4 10	8 16 23	8 28 46
9	23 8	9 11 21	9 24 10	10 7 16	10 20 41	11 4 26	11 18 31	0 2 57
16	1 9	0 17 38	1 2 31	1 17 27	2 2 19	2 16 59	3 1 19	3 15 17
23	8 9	3 28 48	4 11 55	4 24 38	5 7 2	5 19 10	6 1 7	6 12 57
30	15 9	6 24 47	7 6 38	7 18 35	8 0 41	8 12 58	8 25 27	9 8 10
Jan 6	22 9	9 21 6	10 4 15	10 17 38	11 1 13	11 15 1	11 29 0	0 13 10

Ayanamsa on 1st Jan. : 23° 05' 09"

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			गु ♃ बृ			मं ♂ मं			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Jan. 1	18	9	2R	13	58	5	4	13	8	3	20	8	17	08	10	1	23	7R	29	45	7	29	35
3	20	9	2	13	48	5	4	17	8	4	49	8	19	10	10	3	42	7D	29	35	7	29	44
5	22	9	2	13	38	5	4	20	8	6	19	8	21	12	10	6	00	8	0	00	8	0	24
7	23	9	2	13	29	5	4	22	8	7	48	8	23	15	10	8	17	8	0	55	8	1	32
9	25	9	2	13	19	5	4	24	8	9	18	8	25	17	10	10	33	8	2	13	8	3	00
11	27	9	2	13	10	5R	4	25	8	10	47	8	27	19	10	12	49	8	3	52	8	4	47
13	29	9	2	13	00	5	4	25	8	12	17	8	29	22	10	15	04	8	5	45	8	6	47
15	1	10	2	12	51	5	4	24	8	13	48	9	1	24	10	17	18	8	7	51	8	8	58
17	3	10	2	12	42	5	4	22	8	15	18	9	3	26	10	19	31	8	10	07	8	11	19
19	6	10	2	12	33	5	4	20	8	16	48	9	5	28	10	21	48	8	12	32	8	13	47
21	8	10	2	12	25	5	4	17	8	18	18	9	7	31	10	23	54	8	15	03	8	16	21
23	10	10	2	12	16	5	4	13	8	19	49	9	9	33	10	26	04	8	17	40	8	19	00
25	12	10	2	12	08	5	4	08	8	21	20	9	11	35	10	28	13	8	20	21	8	21	44
27	14	10	2	12	01	5	4	03	8	22	51	9	13	37	11	0	21	8	23	07	8	24	32
29	16	10	2	11	53	5	3	57	8	24	22	9	15	38	11	2	26	8	25	57	8	27	24
31	18	10	2	11	46	5	3	50	8	25	53	9	17	40	11	4	31	8	28	51	9	0	19
Feb. 2	20	10	2	11	39	5	3	43	8	27	25	9	19	42	11	6	34	9	1	48	9	3	17
4	22	10	2	11	32	5	3	35	8	28	56	9	21	44	11	8	36	9	4	48	9	6	19
6	24	10	2	11	26	5	3	26	9	0	28	9	23	45	11	10	36	9	7	51	9	9	24
8	25	10	2	11	21	5	3	17	9	2	00	9	25	47	11	12	34	9	10	58	9	12	32
10	27	10	2	11	15	5	3	07	9	3	32	9	27	48	11	14	29	9	14	08	9	15	44
12	30	10	2	11	10	5	2	56	9	5	04	9	29	50	11	16	23	9	17	20	9	18	58
14	2	11	2	11	06	5	2	45	9	6	36	10	1	51	11	18	15	9	20	37	9	22	16
16	4	11	2	11	01	5	2	33	9	8	08	10	3	52	11	20	04	9	23	56	9	25	38
18	7	11	2	10	57	5	2	21	9	9	40	10	5	53	11	21	50	9	27	20	9	29	02
20	9	11	2	10	54	5	2	08	9	11	13	10	7	54	11	23	34	10	0	46	10	2	31
22	11	11	2	10	51	5	1	54	9	12	45	10	9	55	11	25	14	10	4	17	10	6	04
24	13	11	2	10	48	5	1	41	9	14	18	10	11	56	11	26	51	10	7	51	10	9	40
26	15	11	2	10	46	5	1	27	9	15	50	10	13	57	11	28	24	10	11	30	10	13	20
28	16	11	2	10	45	5	1	12	9	17	23	10	15	57	11	29	54	10	15	12	10	17	04
Mar. 2	18	11	2	10	45	5	0	58	9	18	56	10	17	58	0	1	19	10	18	58	10	20	52
4	20	11	2	10	44	5	0	43	9	20	29	10	19	58	0	2	40	10	22	47	10	24	42
6	22	11	2D	10	44	5	0	28	9	22	02	10	21	58	0	3	56	10	26	38	10	28	35
8	24	11	2	10	44	5	0	13	9	23	35	10	23	58	0	5	06	11	0	32	11	2	29
10	26	11	2	10	45	4	29	57	9	25	08	10	25	58	0	6	11	11	4	26	11	6	22
12	28	11	2	10	46	4	29	42	9	26	41	10	27	58	0	7	10	11	8	18	11	10	13
14	30	11	2	10	48	4	29	26	9	28	14	10	29	58	0	8	02	11	12	07	11	13	59
16	3	*12*	2	10	50	4	29	11	9	29	47	11	1	57	0	8	47	11	15	49	11	17	36
18	5	*12*	2	10	52	4	28	55	10	1	21	11	3	57	0	9	25	11	19	20	11	21	01
20	7	*12*	2	10	55	4	28	40	10	2	54	11	5	56	0	9	55	11	22	38	11	24	10
22	9	*12*	2	10	59	4	28	24	10	4	28	11	7	55	0	10	15	11	25	37	11	26	59
24	11	*12*	2	11	03	4	28	09	10	6	01	11	9	55	0	10	27	11	28	16	11	29	26
26	13	*12*	2	11	07	4	27	54	10	7	34	11	11	53	0R	10	30	0	0	30	0	1	27
28	15	*12*	2	11	12	4	27	39	10	9	07	11	13	52	0	10	22	0	2	18	0	3	01
30	17	*12*	2	11	17	4	27	25	10	10	41	11	15	50	0	10	05	0	3	38	0	4	07
Apr. 1	18	*12*	2	11	21	4	27	10	10	12	13	11	17	49	0	9	36	0	4	27	0	4	42
3	20	*12*	2	11	27	4	26	56	10	13	47	11	19	47	0	8	59	0	4	49	0R	4	49
5	22	*12*	2	11	34	4	26	43	10	15	20	11	21	45	0	8	13	0	4	42	0	4	29
7	24	*12*	2	11	40	4	26	30	10	16	54	11	23	43	0	7	18	0	4	09	0	3	44
9	26	*12*	2	11	47	4	26	18	10	18	27	11	25	41	0	6	16	0	3	14	0	2	40
11	29	*12*	2	11	55	4	26	06	10	20	00	11	27	39	0	5	08	0	2	02	0	1	21
13	1	12	2	12	02	4	25	55	10	21	33	11	29	37	0	3	56	0	0	38	11	29	54
15	3	12	2	12	10	4	25	44	10	23	07	0	1	34	0	2	41	11	29	10	11	28	26
17	6	12	2	12	19	4	25	34	10	24	40	0	3	31	0	1	26	11	27	43	11	27	02

Ayanamsa on 1st Jan. : 23° 05' 09"

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			शा ♄ श	बृ ♃ गु	मं ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Apr.17	6	12	2 12 19	4 R25 34	10 24 40	0 3 31	0 R1 26	11 R27 43	11 27 02
19	8	12	2 12 27	4 25 25	10 26 12	0 5 29	0 0 11	11 26 24	11 25 49
21	10	12	2 12 36	4 25 16	10 27 45	0 7 26	11 29 01	11 25 18	11 24 51
23	11	12	2 12 46	4 25 08	10 29 18	0 9 23	11 27 55	11 24 28	11 24 10
25	13	12	2 12 56	4 25 01	11 0 51	0 11 20	11 26 56	11 23 57	11 23 49
27	15	12	2 13 06	4 24 54	11 2 23	0 13 16	11 26 04	11 23 45	11 D23 47
29	17	12	2 13 17	4 24 48	11 3 56	0 15 13	11 25 21	11 23 53	11 24 05
May 1	19	12	2 13 27	4 24 43	11 5 28	0 17 09	11 24 48	11 24 21	11 24 42
3	21	12	2 13 38	4 24 38	11 7 01	0 19 06	11 24 24	11 25 07	11 25 36
5	23	12	2 13 50	4 24 34	11 8 33	0 21 02	11 24 10	11 26 10	11 26 47
7	25	12	2 14 01	4 24 31	11 10 05	0 22 58	11 D24 06	11 27 28	11 28 13
9	27	12	2 14 13	4 24 29	11 11 37	0 24 54	11 24 11	11 29 01	11 29 53
11	30	12	2 14 25	4 24 27	11 13 09	0 26 50	11 24 25	0 0 48	0 1 46
13	2	1	2 14 37	4 24 26	11 14 41	0 28 46	11 24 48	0 2 47	0 3 51
15	4	1	2 14 50	4 D24 25	11 16 12	1 0 42	11 25 19	0 4 58	0 6 08
17	6	1	2 15 02	4 24 26	11 17 44	1 2 38	11 25 58	0 7 20	0 8 35
19	8	1	2 15 15	4 24 27	11 19 15	1 4 33	11 26 43	0 9 53	0 11 13
21	10	1	2 15 28	4 24 29	11 20 47	1 6 29	11 27 36	0 12 36	0 14 01
23	12	1	2 15 42	4 24 32	11 22 18	1 8 24	11 28 34	0 15 28	0 16 58
25	14	1	2 15 56	4 24 35	11 23 48	1 10 19	11 29 38	0 18 31	0 20 05
27	15	1	2 16 10	4 24 39	11 25 19	1 12 14	0 0 48	0 21 42	0 23 22
29	17	1	2 16 24	4 24 44	11 26 49	1 14 10	0 2 02	0 25 05	0 26 48
31	19	1	2 16 38	4 24 49	11 28 19	1 16 05	0 3 21	0 28 34	1 0 23
June 2	21	1	2 16 52	4 24 55	11 29 49	1 18 00	0 4 44	1 2 04	1 4 07
4	23	1	2 17 07	4 25 02	0 1 19	1 19 54	0 6 11	1 6 03	1 8 00
6	26	1	2 17 21	4 25 09	0 2 49	1 21 49	0 7 42	1 10 00	1 12 02
8	28	1	2 17 37	4 25 17	0 4 18	1 23 44	0 9 16	1 14 06	1 16 12
10	30	1	2 17 50	4 25 26	0 5 48	1 25 39	0 10 53	1 18 19	1 20 27
12	2	2	2 18 05	4 25 35	0 7 17	1 27 34	0 12 32	1 22 37	1 24 48
14	5	2	2 18 20	4 25 45	0 8 45	1 29 28	0 14 15	1 26 59	1 29 11
16	7	2	2 18 35	4 25 56	0 10 14	2 1 23	0 16 00	2 1 23	2 3 35
18	8	2	2 18 51	4 26 08	0 11 42	2 3 18	0 17 47	2 5 46	2 7 57
20	10	2	2 19 06	4 26 19	0 13 10	2 5 12	0 19 36	2 10 07	2 12 15
22	12	2	2 19 22	4 26 31	0 14 38	2 7 07	0 21 27	2 14 23	2 16 29
24	14	2	2 19 37	4 26 44	0 16 05	2 9 01	0 23 20	2 18 33	2 20 35
26	16	2	2 19 52	4 26 58	0 17 32	2 10 55	0 25 15	2 22 26	2 24 35
28	18	2	2 20 08	4 27 11	0 18 59	2 12 50	0 27 12	2 26 32	2 28 27
30	20	2	2 20 24	4 27 25	0 20 25	2 14 44	0 29 10	3 0 20	3 2 10
July 2	22	2	2 20 39	4 27 40	0 21 52	2 16 39	1 1 09	3 3 59	3 5 46
4	24	2	2 20 55	4 27 56	0 23 18	2 18 33	1 3 10	3 7 30	3 9 13
6	27	2	2 21 10	4 28 12	0 24 43	2 20 27	1 5 12	3 10 53	3 12 31
8	29	2	2 21 26	4 28 28	0 26 09	2 22 22	1 7 14	3 14 07	3 15 41
10	1	3	2 21 41	4 28 45	0 27 34	2 24 16	1 9 18	3 17 13	3 18 42
12	3	3	2 21 57	4 29 03	0 28 58	2 26 11	1 11 23	3 20 10	3 21 35
14	5	3	2 22 12	4 29 20	1 0 23	2 28 05	1 13 29	3 22 53	3 24 19
16	7	3	2 22 28	4 29 38	1 1 47	3 0 00	1 15 36	3 25 38	3 26 54
18	9	3	2 22 43	4 29 57	1 3 10	3 1 54	1 17 44	3 28 08	3 29 19
20	10	3	2 22 59	5 0 16	1 4 34	3 3 49	1 19 53	4 0 28	4 1 35
22	12	3	2 23 14	5 0 35	1 5 56	3 5 43	1 22 03	4 2 38	4 3 39
24	14	3	2 23 30	5 0 55	1 7 19	3 7 38	1 24 13	4 4 37	4 5 32
26	16	3	2 23 45	5 1 15	1 8 42	3 9 32	1 26 24	4 6 24	4 7 12
28	19	3	2 24 00	5 1 35	1 10 04	3 11 27	1 28 36	4 7 57	4 8 39
30	21	3	2 24 15	5 1 56	1 11 25	3 13 22	2 0 49	4 9 16	4 9 50
Ang. 1	23	3	2 24 30	5 2 17	1 12 46	3 15 16	2 3 02	4 10 20	4 10 45

EPHEMERIS · Longitudes of Planets 1945 A.D.

***Ayanamsa* on 1st Jan : 23° 05′ 09″**

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ बृ	म ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	23	3	2 24 30	5 2 17	1 12 46	3 15 16	2 3 02	4 10 20	4 10 45
3	25	3	2 24 45	5 2 38	1 14 07	3 17 11	2 5 16	4 11 06	4 11 23
5	27	3	2 24 59	5 3 00	1 15 27	3 19 06	2 7 31	4 11 34	4 11 41
7	29	3	2 25 14	5 3 22	1 16 47	3 21 01	2 9 46	4R11 42	4 11 38
9	1	4	2 25 28	5 3 44	1 18 07	3 22 56	2 12 01	4 11 29	4 11 14
11	3	4	2 25 43	5 4 07	1 19 26	3 24 51	2 14 18	4 10 54	4 10 29
13	5	4	2 25 57	5 4 29	1 20 44	3 26 47	2 16 34	4 9 58	4 9 23
15	7	4	2 26 11	5 4 52	1 22 02	3 28 42	2 18 52	4 8 43	4 7 59
17	9	4	2 26 25	5 5 16	1 23 20	4 0 37	2 21 09	4 7 12	4 6 22
19	11	4	2 26 39	5 5 39	1 24 37	4 2 34	2 23 27	4 5 31	4 4 39
21	13	4	2 26 53	5 6 03	1 25 53	4 4 28	2 25 16	4 3 47	4 2 56
23	15	4	2 27 06	5 6 27	1 27 09	4 6 24	2 28 05	4 2 08	4 1 23
25	17	4	2 27 19	5 6 51	1 28 25	4 8 19	3 0 25	4 0 42	4 0 07
27	19	4	2 27 32	5 7 15	1 29 40	4 10 15	3 2 45	3 29 38	3 29 15
29	22	4	2 27 44	5 7 39	2 0 54	4 12 11	3 5 05	3 29 00	3 28 53
31	24	4	2 27 57	5 8 04	2 2 08	4 14 07	3 7 26	3D28 54	3 29 03
Sept. 2	26	4	2 28 09	5 8 29	2 3 22	4 16 03	3 9 48	3 29 21	3 29 47
4	28	4	2 28 21	5 8 54	2 4 35	4 18 00	3 12 09	4 0 22	4 1 05
6	30	4	2 28 33	5 9 18	2 5 47	4 19 56	3 14 31	4 1 56	4 2 54
8	2	5	2 28 44	5 9 43	2 6 59	4 21 53	3 16 54	4 3 59	4 5 11
10	4	5	2 28 56	5 10 10	2 8 09	4 23 49	3 19 16	4 6 29	4 7 52
12	5	5	2 29 07	5 10 35	2 9 20	4 25 46	3 21 39	4 9 21	4 10 54
14	7	5	2 29 17	5 11 01	2 10 29	4 27 43	3 24 03	4 12 30	4 14 11
16	9	5	2 29 28	5 11 26	2 11 38	4 29 40	3 26 27	4 15 54	4 17 39
18	11	5	2 29 38	5 11 52	2 12 46	5 1 37	3 28 51	4 19 26	4 21 15
20	13	5	2 29 47	5 12 17	2 13 53	5 3 34	4 1 16	4 23 04	4 24 55
22	16	5	2 29 57	5 12 43	2 15 00	5 5 31	4 3 40	4 26 46	4 28 37
24	18	6	3 0 06	5 13 09	2 16 05	5 7 29	4 6 05	5 0 28	5 2 18
26	20	5	3 0 15	5 13 35	2 17 10	5 9 26	4 8 31	5 4 08	5 5 58
28	22	5	3 0 23	5 14 01	2 18 14	5 11 24	4 10 56	5 7 48	5 9 37
30	25	5	3 0 31	5 14 27	2 19 17	5 13 22	4 13 22	5 11 25	5 13 12
Oct. 2	27	5	3 0 39	5 14 53	2 20 19	5 15 20	4 15 49	5 14 59	5 16 45
4	28	5	3 0 47	5 15 19	2 21 20	5 17 18	4 18 15	5 18 30	5 20 14
6	30	5	3 0 54	5 15 45	2 22 21	5 19 17	4 20 42	5 21 57	5 23 40
8	2	6	3 1 00	5 16 11	2 23 20	5 21 15	4 23 09	5 25 22	5 27 03
10	4	6	3 1 06	5 16 37	2 24 18	5 23 14	4 25 36	5 28 43	6 0 22
12	6	6	3 1 12	5 17 03	2 25 15	5 25 12	4 28 04	6 2 01	6 3 39
14	8	6	3 1 17	5 17 28	2 26 11	5 27 11	5 0 31	6 5 17	6 6 53
16	10	6	3 1 22	5 17 54	2 27 05	5 29 10	5 2 59	6 8 29	6 10 04
18	12	6	3 1 27	5 18 20	2 27 59	6 1 09	5 5 27	6 11 39	6 13 13
20	14	6	3 1 31	5 18 46	2 28 51	6 3 08	5 7 56	6 14 46	6 16 19
22	16	6	3 1 34	5 19 11	2 29 42	6 5 08	5 10 24	6 17 51	6 19 23
24	19	6	3 1 38	5 19 37	3 0 31	6 7 07	5 12 52	6 20 54	6 22 24
26	21	6	3 1 41	5 20 02	3 1 19	6 9 07	5 15 21	6 23 54	6 25 24
28	23	6	3 1 43	5 20 27	3 2 05	6 11 07	5 17 50	6 26 53	6 28 21
30	25	6	3 1 44	5 20 52	3 2 50	6 13 06	5 20 19	6 29 49	7 1 16
Nov. 1	27	6	3 1 46	5 21 17	3 3 33	6 15 06	5 22 49	7 2 42	7 4 08
3	29	6	3 1 47	5 21 42	3 4 14	6 17 07	5 25 18	7 5 33	7 6 57
5	1	7	3 1 48	5 22 06	3 4 53	6 19 07	5 27 48	7 8 20	7 9 43
7	2	7	3R1 48	5 22 30	3 5 31	6 21 07	6 0 12	7 11 05	7 12 26
9	4	7	3 1 48	5 22 54	3 6 07	6 23 08	6 2 47	7 13 46	7 15 04
11	6	7	3 1 47	5 23 18	3 6 40	6 25 09	6 5 17	7 16 21	7 17 37
13	8	7	3 1 45	5 23 42	3 7 11	6 27 09	6 7 47	7 18 51	7 20 03
15	10	7	3 1 44	5 24 06	3 7 40	6 29 10	6 10 17	7 21 13	7 22 20

1945 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		♄ श नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov15	10 7	3R 1 44	5 24 06	3 7 40	6 29 10	6 10 17	7 21 13	7 22 20
17	12 7	3 1 42	5 24 30	3 8 07	7 1 11	6 12 47	7 23 25	7 24 27
19	15 7	3 1 39	5 24 53	3 8 32	7 3 12	6 15 17	7 25 26	7 26 20
21	17 7	3 1 36	5 25 15	3 8 53	7 5 13	6 17 47	7 27 10	7 27 55
23	19 7	3 1 33	5 25 38	3 9 12	7 7 14	6 20 18	7 28 35	7 29 08
25	21 7	3 1 29	5 26 00	3 9 29	7 9 16	6 22 48	7 29 34	7 29 52
27	23 7	3 1 24	5 26 22	3 9 43	7 11 17	6 25 19	8R 0 02	8 0 02
29	25 7	3 1 20	5 26 44	3 9 54	7 13 19	6 27 49	7 29 51	7 29 30
Dec. 1	27 7	3 1 15	5 27 05	3 10 02	7 15 20	7 0 20	7 28 58	7 28 15
3	29 7	3 1 09	5 27 25	3 10 07	7 17 22	7 2 50	7 27 21	7 26 18
5	1 8	3 1 03	5 27 46	3R 10 08	7 19 24	7 5 21	7 25 06	7 23 48
7	3 8	3 0 57	5 28 06	3 10 06	7 21 26	7 7 52	7 22 26	7 21 04
9	4 8	3 0 50	5 28 26	3 10 01	7 23 28	7 10 23	7 19 43	7 18 27
11	6 8	3 0 44	5 28 46	3 9 53	7 25 30	7 12 53	7 17 17	7 16 15
13	9 8	3 0 37	5 29 05	3 9 41	7 27 32	7 15 24	7 15 23	7 14 42
15	11 8	3 0 29	5 29 23	3 9 26	7 29 34	7 17 55	7 14 12	7 13 53
17	13 8	3 0 21	5 29 41	3 9 07	8 1 36	7 20 26	7 13 45	7D 13 48
19	15 8	3 0 13	5 29 59	3 8 45	8 3 38	7 22 57	7 14 00	7 14 20
21	18 8	3 0 04	6 0 16	3 8 20	8 5 40	7 25 28	7 14 48	7 15 23
23	20 8	2 29 56	6 0 33	3 7 52	8 7 42	7 27 59	7 16 05	7 16 52
25	22 8	2 29 47	6 0 50	3 7 20	8 9 44	8 0 30	7 17 44	7 18 40
27	24 8	2 29 38	6 1 06	3 6 46	8 11 47	8 3 01	7 19 40	7 20 43
29	25 8	2 29 29	6 1 21	3 6 10	8 13 49	8 5 32	7 21 50	7 22 59
31	27 8	2 29 19	6 1 35	3 5 31	8 15 51	8 8 03	7 24 10	7 25 24
Jan. 2	29 8	2 29 10	6 1 49	3 4 49	8 17 54	8 10 34	7 26 39	7 27 56

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January 1	2 25 15	2 25 43	1 R16 53	5 13 21	3R 16 38	23 5 9
February 1	2 25 15	2 24 5	1 16 8	5 R13 11	3 15 57	23 5 14
March 1	2 24 3	2 22 36	1 D16 7	5 12 39	3 15 19	23 5 17
April 1	2 20 59	2 20 57	1 16 50	5 11 48	3 14 52	23 5 20
May 1	2 17 51	2 19 21	1 18 11	5 11 4	3 D14 49	23 5 24
June 1	2 16 15	2 17 43	1 19 56	5 10 36	3 15 8	23 5 28
July 1	2 16 6	2 16 7	1 21 41	5 D10 37	3 15 47	23 5 33
August 1	2 15 57	2 14 29	1 23 12	5 11 7	3 16 40	23 5 38
September 1	2 14 19	2 12 50	1 24 8	5 12 2	3 17 34	23 5 42
October 1	2 11 13	2 11 15	1 R24 20	5 13 7	3 18 15	23 5 45
November 1	2 8 9	2 9 36	1 23 44	5 14 14	3 18 38	23 5 49
December 1	2 6 57	2 8 1	1 22 37	5 15 5	3 R18 36	23 5 53
January 1	2 6 58	2 6 22	1 21 20	5 15 30	3 18 8	23 5 59

Combustion or Heliacal Setting of Planets

Saturn : From June 21 to July 23.
Jupiter : From Sept. 20 to Oct. 13.
Mars : — —
Venus : — —
Mercury : From Feb. 13 to Mar. 14, Apr. 6 to Apr. 21, June 6 to June 26, Aug. 14 to Aug. 28, Sept. 19 to Oct. 20, Dec. 2 to Dec. 13.

Retrogression of Planets

PLANET	RETROGRADE Date				Long.			DIRECT Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	—		—			—		Jan.	2,	17	30	7	29	36
	Apr.	3,	17	42	0	4	50	Apr.	27,	9	19	11	23	45
	Aug.	6,	23	49	4	11	42	Aug.	30,	14	28	3	28	53
	Nov.	27,	17	7	8	0	8	Dec.	17,	9	56	7	13	45
Venus	Mar.	25,	17	30	0	10	30	May	7,	5	30	11	24	6
Mars	Dec.	4,	28	27	3	10	8	—		—			—	
Jupiter	Jan.	12	8	42	5	4	25	May	14,	23	27	4	24	25
Saturn	—		—			—		Mar.	5,	28	15	2	10	44
	Nov.	6,	18	20	3	1	48	—		—			—	
Uranus	—		—			—		Feb.	15,	28	32	1	16	3
	Sept.	23,	13	50	1	24	21	—		—			—	
Neptune	Jan.	7,	19	42	5	13	21	June	14,	24	42	5	10	23
Pluto	—		--			—		Apr.	20,			3	14	47
	Nov.	12,			3	18	41	—		—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	14	10	36	Māgha	Sukla	Jan.	28	12	11	Phālguna	Vadi
Feb.	12	23	3	Phālguna	,,	Feb.	27	5	37	Caitra	,,
Mar.	14	9	21	Caitra (*Mala*)	,,	Mar.	28	23	14	Caitra (*Adhika*)	,,
Apr.	12	17	59	Caitra (*Suddha*)	,,	Apr	27	16	3	Vaiśākha	,,
May	11	25	51	Vaiśākha	,,	May	27	7	19	Jyaiṣṭha	,,
June	10	9	56	Jyaiṣṭha	,,	June	25	20	38	Āṣāḍha	,,
July	9	19	5	Āṣāḍha	,,	July	25	7	55	Śrāvaṇa	,,
Aug.	8	6	2	Śrāvaṇa	,,	Aug.	23	17	33	Bhādra	,,
Sept.	6	19	13	Bhādra	,,	Sept.	21	26	16	Āśvina	,,
Oct.	6	10	52	Āśvina	,,	Oct.	21	11	2	Kārtika	,,
Nov.	4	28	41	Kārtika	,,	Nov.	19	20	43	Agrahā	,,
Dec.	4	23	36	Agrahā	,,	Dec.	19	7	47	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan	13	20	30	Karkata	on	July	16	5	34
Kumbha	on	Feb.	12	9	30	Siṁha	on	Aug.	16	13	54
Mina	on	Mar.	14	6	25	Kanyā	on	Sept.	16	13	43
Meṣa	on	Apr.	13	15	1	Tulā	on	Oct.	16	25	34
Vṛṣa	on	May	14	12	0	Vṛścika	on	Nov.	15	25	14
Mithuna	on	June	14	18	30	Dhanus	on	Dec.	15	15	50

Longitude of Moon

Saka era 1867-68, Samvat 2002-03 (Apr. 3, Oct. 25), B.S. 1352-53 (Apr. 14),
Kollam era 1121-22 (Aug. 17), 20 Vyaya (Apr. 3, Apr. 14)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.30	15	9	6	24	47	7	6	38	7	18	35	8	0	41	8	12	58	8	25	27	9	8	10
Jan. 6	22	9	9	21	6	10	4	15	10	17	38	11	1	13	11	15	1	11	29	0	0	13	10
13	29	9	0	27	28	1	11	53	1	26	21	2	10	47	2	25	6	3	9	12	3	23	2
20	6	10	4	6	32	4	19	40	5	2	27	5	14	54	5	27	5	6	9	3	6	20	55
27	13	10	7	2	44	7	14	36	7	26	36	8	8	48	8	21	15	9	4	0	9	17	2
Feb. 3	20	10	10	0	23	10	14	0	10	27	49	11	11	47	11	25	51	0	9	58	0	24	6
10	27	10	1	8	13	1	22	18	2	6	20	2	20	17	3	4	8	3	17	49	4	1	19
17	5	11	4	14	35	4	27	34	5	10	15	5	22	40	6	4	51	6	16	50	6	28	41
24	12	11	7	10	30	7	22	22	8	4	22	8	16	35	8	29	7	9	12	0	9	25	17
Mar. 3	19	11	10	8	58	10	12	59	11	7	16	11	21	43	0	6	13	0	20	40	1	5	0
10	26	11	1	19	10	2	3	9	2	16	57	3	0	35	3	14	2	3	27	18	4	10	24
17	3	12	4	23	19	5	6	1	5	18	31	6	0	48	6	12	53	6	24	49	7	6	39
24	10	12	7	18	27	8	0	17	8	12	16	8	24	28	9	6	59	9	19	53	10	3	14
31	17	12	10	17	3	11	1	18	11	15	54	0	0	43	0	15	38	1	0	30	1	15	11
Apr. 7	24	12	1	29	36	2	13	43	2	27	31	3	11	1	3	24	16	4	7	15	4	20	2
14	1	1	5	2	38	5	15	2	5	27	17	6	9	23	6	21	21	7	3	13	7	15	1
21	8	1	7	26	48	8	8	39	8	20	37	9	2	48	9	15	17	9	28	9	10	11	26
28	15	1	10	25	12	11	9	27	11	24	7	0	9	5	0	24	14	1	9	23	1	24	23
May 5	22	1	2	9	6	2	23	28	3	7	26	3	21	1	4	4	13	4	17	6	4	29	43
12	29	1	5	12	6	5	24	17	6	6	20	6	18	16	7	0	7	7	11	56	7	23	44
19	5	2	8	5	34	8	17	29	8	29	31	9	11	46	9	24	16	10	7	5	10	20	18
26	12	2	11	3	57	11	18	3	0	2	33	0	17	25	1	2	32	1	17	43	2	2	51
June 2	19	2	2	17	46	3	2	20	3	16	30	4	0	14	4	13	31	4	26	25	5	8	59
9	26	2	5	21	16	6	3	21	6	15	17	6	27	7	7	8	56	7	20	44	8	2	35
16	1	3	8	14	32	8	26	35	9	8	48	9	21	12	10	3	50	10	16	45	10	29	58
23	8	3	11	13	31	11	27	27	0	11	44	0	26	19	1	11	9	1	26	9	2	11	9
30	15	3	2	26	1	3	10	38	3	24	54	4	8	45	4	22	8	5	5	6	5	17	42
July 7	22	3	5	29	59	6	12	2	6	23	55	7	5	44	7	17	32	7	29	23	8	11	20
14	29	3	8	23	26	9	5	42	9	18	11	10	0	52	10	13	46	10	26	54	11	10	15
21	5	4	11	23	51	0	7	42	0	21	47	1	6	6	1	20	35	2	5	13	2	19	53
28	12	4	3	4	30	3	18	56	4	3	5	4	16	53	5	0	18	5	13	18	5	25	55
Aug. 4	19	4	6	8	13	6	20	16	7	2	9	7	13	58	7	25	47	8	7	41	8	19	45
11	26	4	9	2	1	9	14	32	9	27	18	10	10	20	10	23	37	11	7	6	11	20	46
18	1	5	0	4	35	0	18	31	1	2	33	1	16	41	2	0	53	2	15	8	2	29	24
25	8	5	3	13	36	3	27	40	4	11	32	4	25	7	5	8	23	5	21	18	6	3	53
Sept. 1	15	5	6	16	10	6	28	12	7	10	5	7	21	53	8	3	43	8	15	39	8	27	47
8	22	5	9	10	10	9	22	52	10	5	55	10	19	17	11	2	57	11	16	52	0	0	57
15	29	5	0	15	8	0	29	20	1	13	31	1	27	40	2	11	44	2	25	44	3	9	39
22	5	6	3	23	27	4	7	6	4	20	34	5	3	48	5	16	47	5	29	30	6	11	56
29	12	6	6	24	8	7	6	7	7	17	58	7	29	46	8	11	34	8	23	30	9	5	38
Oct. 6	19	6	9	18	3	10	0	49	10	13	59	10	27	34	11	11	32	11	25	49	0	10	19
13	26	6	0	24	56	1	9	33	1	24	4	2	8	26	2	22	36	3	6	33	3	20	16
20	3	7	4	3	46	4	17	3	5	0	8	5	13	0	5	25	39	6	8	5	6	20	19
27	10	7	7	2	23	7	14	18	7	26	6	8	7	52	8	19	40	9	1	34	9	13	40
Nov. 3	17	7	9	26	2	10	8	45	10	21	52	11	5	27	11	19	30	0	3	57	0	18	43
10	24	7	1	3	41	1	18	42	2	3	38	2	18	22	3	2	46	3	16	55	4	0	39
17	1	8	4	14	4	4	27	9	5	9	57	5	22	31	6	4	52	6	17	2	6	29	4
24	8	8	7	10	59	7	22	49	8	4	36	8	16	23	8	28	12	9	10	8	9	22	13
Dec. 1	15	8	10	4	33	10	17	10	11	0	10	11	13	36	11	27	29	0	11	49	0	26	34
8	22	8	1	11	37	1	26	50	2	12	4	2	27	8	3	11	55	3	26	18	4	10	15
15	29	8	4	23	44	5	6	49	5	19	32	6	1	56	6	14	6	6	26	5	7	7	58
22	6	9	7	19	46	8	1	33	8	13	21	8	25	12	9	7	8	9	19	11	10	1	22
29	13	9	10	13	46	10	26	24	11	9	19	11	22	35	0	6	15	0	20	19	1	4	47
Jan. 5	20	9	1	19	36	2	4	42	2	19	54	3	5	4	3	20	2	4	4	39	4	18	49

Ayanamsa on 1st Jan. : 23° 05′ 59″

***Nirayana* Longitudes at 5-30 A.M. I.S.T.**

Date	Tithi & Month		श ♄ श			गु ♃ गु			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	28	8	2R	29	15	6	1	42	3R	5	10	8	16	52	8	9	19	7	25	24	7	26	39
3	30	8	2	29	05	6	1	56	3	4	28	8	18	55	8	11	50	7	27	56	7	29	14
5	2	9	2	28	56	6	2	09	3	3	44	8	20	57	8	14	21	8	0	34	8	1	55
7	4	9	2	28	46	6	2	22	3	2	58	8	22	59	8	16	52	8	3	17	8	4	40
9	6	9	2	28	36	6	2	34	3	2	11	8	25	02	8	19	23	8	6	04	8	7	29
11	8	9	2	28	26	6	2	46	3	1	23	8	27	04	8	21	54	8	8	54	8	10	21
13	10	9	2	28	16	6	2	57	3	0	35	8	29	06	8	24	25	8	11	46	8	13	16
15	13	9	2	28	06	6	3	07	2	29	47	9	1	08	8	26	55	8	14	44	8	16	13
17	15	9	2	27	56	6	3	16	2	29	00	9	3	11	8	29	26	8	17	43	8	19	13
19	17	9	2	27	47	6	3	26	2	28	13	9	5	13	9	1	57	8	20	44	8	22	15
21	19	9	2	27	37	6	3	34	2	27	27	9	7	15	9	4	28	8	23	47	8	25	19
23	21	9	2	27	28	6	3	41	2	26	43	9	9	17	9	6	59	8	26	52	8	28	26
25	23	9	2	27	18	6	3	48	2	26	00	9	11	19	9	9	30	9	0	00	9	1	35
27	25	9	2	27	09	6	3	54	2	25	20	9	13	21	9	12	00	9	3	11	9	4	47
29	26	9	2	26	59	6	3	59	2	24	43	9	15	23	9	14	31	9	6	24	9	8	02
31	28	9	2	26	50	6	4	04	2	24	07	9	17	25	9	17	02	9	9	40	9	11	19
Feb. 2	30	9	2	26	41	6	4	08	2	23	35	9	19	26	9	19	33	9	12	59	9	14	39
4	2	10	2	26	33	6	4	11	2	23	05	9	21	28	9	22	03	9	16	20	9	18	02
6	5	10	2	26	25	6	4	13	2	22	38	9	23	30	9	24	34	9	19	44	9	21	27
8	7	10	2	26	17	6	4	15	2	22	15	9	25	31	9	27	04	9	23	12	9	24	57
10	9	10	2	26	09	6R	4	16	2	21	55	9	27	33	9	29	35	9	26	43	9	28	29
12	11	10	2	26	01	6	4	16	2	21	38	9	29	34	10	2	05	10	0	16	10	2	04
14	13	10	2	25	54	6	4	15	2	21	24	10	1	36	10	4	36	10	3	53	10	5	42
16	15	10	2	25	47	6	4	14	2	21	14	10	3	37	10	7	06	10	7	32	10	9	23
18	17	10	2	25	41	6	4	12	2	21	05	10	5	38	10	9	36	10	11	14	10	13	05
20	19	10	2	25	35	6	4	09	2	21	01	10	7	39	10	12	06	10	14	57	10	16	50
22	21	10	2	25	29	6	4	06	2D	21	00	10	9	40	10	14	36	10	18	42	10	20	34
24	23	10	2	25	23	6	4	02	2	21	01	10	11	40	10	17	07	10	22	25	10	24	15
26	25	10	2	25	18	6	3	56	2	21	06	10	13	41	10	19	37	10	26	05	10	27	53
28	27	10	2	25	14	6	3	51	2	21	13	10	15	42	10	22	07	10	29	40	11	1	24
Mar. 2	29	10	2	25	10	6	3	44	2	21	24	10	17	42	10	24	57	11	3	05	11	4	44
4	1	11	2	25	06	6	3	37	2	21	37	10	19	42	10	27	06	11	6	18	11	7	48
6	3	11	2	25	02	6	3	29	2	21	52	10	21	43	10	29	36	11	9	13	11	10	33
8	5	11	2	24	59	6	3	20	2	22	09	10	23	43	11	2	06	11	11	46	11	12	53
10	7	11	2	24	57	6	3	11	2	22	30	10	25	43	11	4	36	11	13	53	11	14	45
12	10	11	2	24	55	6	3	01	2	22	52	10	27	43	11	7	05	11	15	30	11	16	06
14	12	11	2	24	53	6	2	51	2	23	16	10	29	42	11	9	34	11	16	34	11	16	54
16	14	11	2	24	52	6	2	40	2	23	43	11	1	42	11	12	03	11	17	05	11R	17	07
18	16	11	2	24	51	6	2	28	2	24	11	11	3	41	11	14	32	11	17	01	11	16	48
20	18	11	2	24	51	6	2	16	2	24	42	11	5	40	11	17	02	11	16	26	11	15	58
22	19	11	2D	24	51	6	2	03	2	25	14	11	7	39	11	19	31	11	15	23	11	14	43
24	21	11	2	24	52	6	1	50	2	25	48	11	9	38	11	22	00	11	13	58	11	13	10
26	23	11	2	24	53	6	1	36	2	26	24	11	11	37	11	24	29	11	12	20	11	11	28
28	25	11	2	24	54	6	1	22	2	27	01	11	13	36	11	26	57	11	10	36	11	9	44
30	27	11	2	24	56	6	1	08	2	27	40	11	15	35	11	29	25	11	8	55	11	8	10
Apr. 1	29	11	2	24	58	6	0	54	2	28	20	11	17	33	0	1	54	11	7	25	11	6	45
3	1	12	2	25	01	6	0	39	2	29	01	11	19	32	0	4	22	11	6	10	11	5	40
5	3	12	2	25	04	6	0	24	2	29	44	11	21	30	0	6	51	11	5	15	11	4	56
7	6	12	2	25	08	6	0	09	3	0	28	11	23	28	0	9	19	11	4	42	11	4	34
9	8	12	2	25	12	5	29	54	3	1	13	11	25	26	0	11	42	11D	4	31	11	4	33
11	10	12	2	25	16	5	29	39	3	1	59	11	27	24	0	14	15	11	4	41	11	4	54
13	12	12	2	25	21	5	29	23	3	2	47	11	29	21	0	16	43	11	5	12	11	5	34
15	14	12	2	25	26	5	29	08	3	3	35	0	1	19	0	19	11	11	6	01	11	6	33
17	16	12	2	25	32	5	28	53	3	4	25	0	3	16	0	21	38	11	7	08	11	7	47

Longitudes of Planets

CONDENSED

Ayanamsa on 1st Jan. : 23° 05′ 59″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																					
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.17	16	12	2	25	32	5R	28	53	3	4	25	0	3	16	0	21	38	11	7	08	11	7	47
19	18	12	2	25	38	5	28	38	3	5	15	0	5	13	0	24	06	11	8	30	11	9	17
21	20	12	2	25	45	5	28	22	3	6	07	0	7	11	0	26	33	11	10	07	11	11	00
23	21	12	2	25	52	5	28	07	3	6	59	0	9	08	0	29	00	11	11	56	11	12	56
25	23	12	2	25	59	5	27	52	3	7	52	0	11	04	1	1	27	11	13	58	11	15	03
27	25	12	2	26	07	5	27	38	3	8	46	0	13	01	1	3	54	11	16	10	11	17	20
29	28	12	2	26	15	5	27	24	3	9	41	0	14	58	1	6	21	11	18	33	11	19	48
May 1	30	12	2	26	23	5	27	10	3	10	36	0	16	55	1	8	48	11	21	05	11	22	24
3	2	1	2	26	32	5	26	56	3	11	52	0	18	51	1	11	14	11	23	46	11	25	02
5	5	1	2	26	41	5	26	43	3	12	29	0	20	47	1	13	40	11	26	35	11	28	03
7	7	1	2	26	50	5	26	30	3	13	27	0	22	44	1	16	06	11	29	33	0	1	05
9	9	1	2	27	00	5	26	17	3	14	25	0	24	40	1	18	32	0	2	40	0	4	16
11	11	1	2	27	10	5	26	05	3	15	24	0	26	36	1	20	58	0	5	54	0	7	34
13	13	1	2	27	20	5	25	54	3	16	23	0	28	31	1	23	24	0	9	16	0	11	00
15	14	1	2	27	30	5	25	43	3	17	23	1	0	27	1	25	49	0	12	46	0	14	35
17	16	1	2	27	41	5	25	33	3	18	23	1	2	23	1	28	15	0	16	24	0	18	17
19	18	1	2	27	52	5	25	24	3	19	24	1	4	18	2	0	40	0	20	11	0	22	07
21	20	1	2	28	01	5	25	15	3	20	26	1	6	14	2	3	05	0	24	05	0	26	05
23	23	1	2	28	16	5	25	07	3	21	28	1	8	09	2	5	30	0	28	07	1	0	11
25	24	1	2	28	28	5	24	59	3	22	31	1	10	04	2	7	55	1	2	16	1	4	23
27	26	1	2	28	40	5	24	52	3	23	34	1	12	00	2	10	20	1	6	31	1	8	41
29	28	1	2	28	52	5	24	46	3	24	37	1	13	55	2	12	45	1	10	53	1	13	04
31	1	2	2	29	05	5	24	40	3	25	41	1	15	50	2	15	09	1	15	16	1	17	28
June 2	3	2	2	29	17	5	24	35	3	26	45	1	17	45	2	17	33	1	19	38	1	21	50
4	5	2	2	29	30	5	24	30	3	27	49	1	19	40	2	19	57	1	24	00	1	26	12
6	7	2	2	29	43	5	24	27	3	28	54	1	21	35	2	22	20	1	28	20	2	0	28
8	9	2	2	29	56	5	24	24	4	0	00	1	23	30	2	24	43	2	2	35	2	4	40
10	11	2	3	0	10	5	24	22	4	1	06	1	25	24	2	27	07	2	6	43	2	8	44
12	13	2	3	0	24	5	24	21	4	2	12	1	27	19	2	29	30	2	10	43	2	12	40
14	15	2	3	0	38	5	24	21	4	3	19	1	29	14	3	1	53	2	14	34	2	16	27
16	17	2	3	0	52	5D	24	20	4	4	26	2	1	08	3	4	16	2	18	17	2	20	05
18	18	2	3	1	06	5	24	21	4	5	33	2	3	03	3	6	38	2	21	50	2	23	33
20	20	2	3	1	20	5	24	22	4	6	41	2	4	57	3	9	00	2	25	13	2	26	51
22	22	2	3	1	34	5	24	24	4	7	49	2	6	52	3	11	22	2	28	27	3	0	00
24	25	2	3	1	49	5	24	27	4	8	57	2	8	46	3	13	44	3	1	31	3	2	59
26	27	2	3	2	04	5	24	31	4	10	06	2	10	41	3	16	06	3	4	25	3	5	48
28	29	2	3	2	19	5	24	35	4	11	15	2	12	35	3	18	27	3	7	09	3	8	27
30	1	3	3	2	34	5	24	40	4	12	24	2	14	30	3	20	48	3	9	43	3	10	55
July 2	4	3	3	2	49	5	24	46	4	13	34	2	16	24	3	23	09	3	12	05	3	13	12
4	6	3	3	3	04	5	24	52	4	14	44	2	18	18	3	25	29	3	14	17	3	15	18
6	8	3	3	3	19	5	24	59	4	15	55	2	20	13	3	27	49	3	16	16	3	17	11
8	10	3	3	3	34	5	25	07	4	17	05	2	22	07	4	0	09	3	18	02	3	18	51
10	11	3	3	3	50	5	25	15	4	18	16	2	24	02	4	2	28	3	19	35	3	20	16
12	13	3	3	4	05	5	25	24	4	19	27	2	25	56	4	4	47	3	20	53	3	21	26
14	15	3	3	4	21	5	25	34	4	20	39	2	27	50	4	7	06	3	21	55	3	22	19
16	17	3	3	4	36	5	25	43	4	21	50	2	29	45	4	9	24	3	22	40	3	22	55
18	19	3	3	4	52	5	25	55	4	23	02	3	1	39	4	11	42	3	23	06	3	23	13
20	21	3	3	5	07	5	26	07	4	24	14	3	3	34	4	14	00	3R	23	14	3	23	11
22	23	3	3	5	23	5	26	19	4	25	27	3	5	28	4	16	17	3	23	02	3	22	49
24	25	3	3	5	38	5	26	31	4	26	40	3	7	23	4	18	34	3	22	31	3	22	08
26	28	3	3	5	54	5	26	44	4	27	53	3	9	18	4	20	50	3	21	41	3	21	10
28	30	3	3	6	09	5	26	58	4	29	06	3	11	12	4	23	06	3	20	34	3	19	56
30	2	4	3	6	25	5	27	12	5	0	20	3	13	07	4	25	21	3	19	15	3	18	32
Aug. 1	4	4	3	6	40	5	27	27	5	1	34	3	15	02	4	27	36	3	17	47	3	17	02

Ayanamsa on 1st Jan. : 23° 05′ 59″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T. ♄	♃	♂	☉	♀	☿	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	4	4	3 6 40	5 27 27	5 1 34	3 15 02	4 27 36	3R17 47	3 17 02
3	6	4	3 6 56	5 27 42	5 2 48	3 16 57	4 29 50	3 16 17	3 15 32
5	8	4	3 7 11	5 27 58	5 4 02	3 18 52	5 2 04	3 14 50	3 14 10
7	10	4	3 7 26	5 28 14	5 5 17	3 20 47	5 4 17	3 13 34	3 13 02
9	12	4	3 7 41	5 28 31	5 6 32	3 22 42	5 6 29	3 12 35	3 12 13
11	14	4	3 7 57	5 28 48	5 7 47	3 24 37	5 8 41	3 11 58	3 11 49
13	16	4	3 8 12	5 29 05	5 9 02	3 26 32	5 10 52	3D11 46	3 11 50
15	18	4	3 8 27	5 29 23	5 10 18	3 28 27	5 13 02	3 12 02	3 12 21
17	20	4	3 8 42	5 29 41	5 11 34	4 0 22	5 15 12	3 12 47	3 13 20
19	22	4	3 8 56	6 0 00	5 12 51	4 2 18	5 17 21	3 14 00	3 14 49
21	24	4	3 9 11	6 0 19	5 14 07	4 4 13	5 19 28	3 15 44	3 16 45
23	26	4	3 9 26	6 0 39	5 15 24	4 6 09	5 21 35	3 17 53	3 19 07
25	28	4	3 9 40	6 0 59	5 16 41	4 8 05	5 23 41	3 20 26	3 21 52
27	1	5	3 9 54	6 1 19	5 17 58	4 10 00	5 25 46	3 23 22	3 24 57
29	3	5	3 10 08	6 1 40	5 19 15	4 11 56	5 27 50	3 26 35	3 28 18
31	5	5	3 10 22	6 2 01	5 20 33	4 13 52	5 29 53	4 0 04	4 1 52
Sept. 2	7	5	3 10 36	6 2 22	5 21 51	4 15 49	6 1 54	4 3 43	4 5 35
4	8	5	3 10 49	6 2 44	5 23 09	4 17 45	6 3 55	4 7 29	4 9 23
6	10	5	3 11 03	6 3 06	5 24 28	4 19 41	6 5 53	4 11 19	4 13 15
8	12	5	3 11 16	6 3 28	5 25 47	4 21 38	6 7 51	4 15 10	4 17 08
10	14	5	3 11 29	6 3 51	5 27 06	4 23 34	6 9 47	4 19 02	4 20 56
12	16	5	3 11 42	6 4 14	5 28 25	4 25 31	6 11 40	4 22 51	4 24 45
14	18	5	3 11 55	6 4 37	5 29 44	4 27 28	6 13 33	4 26 37	4 28 29
16	20	5	3 12 07	6 5 00	6 1 04	4 29 24	6 15 23	5 0 20	5 2 10
18	23	5	3 12 19	6 5 23	6 2 24	5 1 22	6 17 11	5 4 00	5 5 48
20	25	5	3 12 30	6 5 47	6 3 44	5 3 19	6 18 57	5 7 35	5 9 21
22	27	5	3 12 42	6 6 11	6 5 04	5 5 16	6 20 40	5 11 06	5 12 50
24	29	5	3 12 53	6 6 36	6 6 25	5 7 14	6 22 21	5 14 33	5 16 16
26	1	6	3 13 04	6 7 00	6 7 46	5 9 11	6 24 00	5 17 55	5 19 37
28	3	6	3 13 15	6 7 25	6 9 07	5 11 09	6 25 35	5 21 17	5 22 55
30	5	6	3 13 25	6 7 49	6 10 28	5 13 07	6 27 06	5 24 33	5 26 09
Oct. 2	7	6	3 13 35	6 8 14	6 11 50	5 15 05	6 28 34	5 27 45	5 29 20
4	9	6	3 13 45	6 8 39	6 13 12	5 17 03	6 29 59	6 0 54	6 2 28
6	10	6	3 13 55	6 9 05	6 14 35	5 19 01	7 1 19	6 4 00	6 5 32
8	12	6	3 14 04	6 9 30	6 15 57	5 21 00	7 2 34	6 7 03	6 8 33
10	15	6	3 14 13	6 9 56	6 17 21	5 22 58	7 3 45	6 10 02	6 11 31
12	17	6	3 14 21	6 10 21	6 18 43	5 24 57	7 4 50	6 12 59	6 14 26
14	19	6	3 14 29	6 10 47	6 20 06	5 26 56	7 5 48	6 15 52	6 17 18
16	21	6	3 14 37	6 11 13	6 21 29	5 28 55	7 6 42	6 18 43	6 20 06
18	23	6	3 14 44	6 11 39	6 22 53	6 0 54	7 7 28	6 21 28	6 22 50
20	26	6	3 14 51	6 12 05	6 24 17	6 2 53	7 8 08	6 24 11	6 25 31
22	28	6	3 14 58	6 12 31	6 25 41	6 4 52	7 8 39	6 26 49	6 28 06
24	30	6	3 15 04	6 12 57	6 27 05	6 6 52	7 9 02	6 29 22	7 0 37
26	1	7	3 15 10	6 13 23	6 28 30	6 8 51	7 9 17	7 1 50	7 3 01
28	3	7	3 15 15	6 13 49	6 29 55	6 10 51	7R9 23	7 4 11	7 5 18
30	5	7	3 15 20	6 14 16	7 1 20	6 12 51	7 9 19	7 6 23	7 7 25
Nov. 1	7	7	3 15 25	6 14 42	7 2 45	6 14 51	7 9 06	7 8 25	7 9 24
3	9	7	3 15 29	6 15 09	7 4 11	6 16 51	7 8 42	7 10 15	7 11 04
5	11	7	3 15 33	6 15 35	7 5 37	6 18 51	7 8 09	7 11 48	7 12 28
7	13	7	3 15 36	6 16 01	7 7 03	6 20 52	7 7 27	7 13 03	7 13 31
9	15	7	3 15 39	6 16 27	7 8 29	6 22 52	7 6 37	7 13 52	7 14 07
11	17	7	3 15 41	6 16 53	7 9 56	6 24 53	7 5 38	7R14 13	7 14 10
13	20	7	3 15 43	6 17 19	7 11 23	6 26 53	7 4 33	7 13 58	7 13 36
15	22	7	3 15 44	6 17 46	7 12 50	6 28 51	7 3 24	7 13 03	7 12 20

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T. शा ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	22	7	3 15 44	6 17 46	7 12 50	6 28 54	7R3 24	7R13 03	7 12 20
17	24	7	3 15 45	6 18 12	7 14 17	7 0 55	7 2 12	7 11 27	7 10 26
19	26	7	3 15 46	6 18 38	7 15 45	7 2 56	7 0 59	7 9 17	7 8 00
21	28	7	3R15 46	6 19 04	7 17 12	7 4 57	6 29 47	7 6 40	7 5 19
23	30	7	3 15 46	6 19 29	7 18 40	7 6 59	6 28 40	7 3 58	7 2 42
25	2	8	3 15 45	6 19 54	7 20 08	7 9 00	6 27 36	7 1 32	7 0 30
27	3	8	3 15 44	6 20 20	7 21 37	7 11 02	6 26 38	6 29 38	6 28 57
29	5	8	3 15 42	6 20 45	7 23 05	7 13 03	6 25 48	6 28 27	6 28 09
Dec. 1	7	8	3 15 40	6 21 11	7 24 34	7 15 05	6 25 08	6D28 02	6 28 06
3	9	8	3 15 37	6 21 36	7 26 03	7 17 06	6 24 36	6 28 20	6 28 44
5	11	8	3 15 34	6 22 01	7 27 33	7 19 08	6 24 14	6 29 15	6 29 54
7	13	8	3 15 31	6 22 26	7 29 02	7 21 10	6 24 02	7 0 40	7 1 31
9	16	8	3 15 27	6 22 50	8 0 32	7 23 12	6D24 01	7 2 28	7 3 29
11	18	8	3 15 23	6 23 15	8 2 02	7 25 14	6 24 08	7 4 34	7 5 42
13	20	8	3 15 19	6 23 39	8 3 32	7 27 16	6 24 26	7 6 53	7 8 07
15	23	8	3 15 14	6 24 03	8 5 02	7 29 18	6 24 52	7 9 23	7 10 40
17	25	8	3 15 08	6 24 26	8 6 33	8 1 20	6 25 26	7 12 00	7 13 21
19	26	8	3 15 02	6 24 50	8 8 03	8 3 22	6 26 09	7 14 44	7 16 07
21	28	8	3 14 56	6 25 13	8 9 34	8 5 24	6 26 59	7 17 32	7 18 57
23	30	8	3 14 49	6 25 36	8 11 05	8 7 26	6 27 56	7 20 23	7 21 50
25	2	9	3 14 42	6 25 58	8 12 36	8 9 29	6 28 59	7 23 17	7 24 45
27	4	9	3 14 35	6 26 20	8 14 07	8 11 31	7 0 08	7 26 14	7 27 43
29	6	9	3 14 28	6 26 42	8 15 39	8 13 33	7 1 22	7 29 13	8 0 42
31	7	9	3 14 21	6 27 04	8 17 11	8 15 36	7 2 42	8 2 13	8 3 44
Jan. 2	10	9	3 14 12	6 27 25	8 18 43	8 17 38	7 4 06	8 5 15	8 6 46

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	2 6 58	2 6 22	1R21 20	5 15 30	3R18 8	23 5 59
February	1	2 6 19	2 4 44	1 20 29	5R15 23	3 17 26	23 6 4
March	1	2 4 3	2 3 15	1D20 20	5 14 53	3 16 50	23 6 8
April	1	2 0 35	2 1 37	1 20 59	5 14 4	3 16 23	23 6 11
May	1	1 28 16	2 0 1	1 22 16	5 13 18	3D16 19	23 6 14
June	1	1 27 41	1 28 23	1 23 59	5 12 48	3 16 39	23 6 19
July	1	1 27 42	1 26 47	1 25 40	5D12 46	3 17 18	23 6 24
August	1	1 26 48	1 25 8	1 27 19	5 13 14	3 18 11	23 6 29
September	1	1 24 6	1 23 29	1 28 22	5 14 8	3 19 4	23 6 33
October	1	1 20 53	1 21 54	1R28 40	5 15 13	3 19 46	23 6 36
November	1	1 18 52	1 20 16	1 28 12	5 16 20	3 20 8	23 6 40
December	1	1 18 34	1 18 41	1 27 8	5 17 11	3 20 7	23 6 44
January	1	1 18 27	1 17 2	1 25 50	5 17 40	3R19 46	23 6 50

Combustion or Heliacal Setting of Planets

Saturn : From July 6 to Aug. 6.
Jupiter : From Oct. 20 to Nov. 12.
Mars : From Nov. 15 to Mar. 15 ('47)
Venus : From Jan. 7 to Feb. 25, Nov. 15 to Nov. 21.
Mercury : From Jan. 24 to Feb. 25, Mar. 19 to Apr. 2. May 21 to June 10, July 27 to Aug. 10, Sept. 2 to Sept. 30, Nov. 12 to Nov. 27.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	*m*	s	°	′			*h*	*m*	s	°	′
Mercury	Mar.	16,	24	39	11	17	7	Apr.	9	5	34	11	4	31
	July	19,	24	25	3	23	14	Aug.	12.	26	24	3	11	46
	Nov	11,	9	55	7	14	13	Dec.	1	8	17	6	28	2
Venus	Oct.	28,	10	12	7	9	23	Dec.	8,	15	6	6	24	0
Mars	—		—		—			Feb.	21	26	54	2	21	0
Jupiter	Feb.	11,	13	57	6	4	16	June	14	23	56	5	24	20
Saturn	—		—		—			Mar.	20	14	17	2	24	51
	Nov.	20	20	43	3	15	46	—		—		—		
Uranus	—		—		—			Feb.	20,	13	15	1	20	19
	Sept.	27,	25	45	1	28	41	—		—		—		
Neptune	Jan.	10,	9	23	5	15	31	June	17,	14	14	5	12	43
Pluto	—		—		—			Apr.	22			3	16	18
	Nov.	14,	—		3	20	13	—		—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	*h*	*m*				*d*	*h*	*m*		
Jan.	3	18	0	Pauṣa	Sukla	Jan.	17	20	16	Māgha	Vadi
Feb.	2	10	13	Māgha	,,	Feb.	16	9	58	Phālguna	,,
Mar.	3	23	31	Phālguna	,,	Mar.	17	24	41	Caitra	,,
Apr.	2	10	7	Caitra	,,	Apr.	16	16	17	Vaiśākha	,,
May	1	18	46	Vaiśākha	,,	May	16	8	22	Jyaiṣṭha	,,
May	30	26	19	Jyaiṣṭha	,,	June	14	24	12	Āṣaḍha	,,
June	29	9	36	Āṣāḍha	,,	July	14	14	52	Śravaṇa	,,
July	28	17	23	Śravaṇa	,,	Aug.	12	27	56	Bhādra	,,
Aug.	26	26	37	Bhādra	,,	Sept.	11	15	29	Āśvina	,,
Sept.	25	14	15	Āśvina	,,	Oct.	10	26	10	Kārtika	,,
Oct.	24	29	2	Kārtika	,,	Nov.	9	12	40	Agrahā	,,
Nov.	23	22	54	Agrahā	,,	Dec.	8	23	22	Pauṣa	,,
Dec.	23	18	36	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	13	26	34	Karkaṭa	on	July	16	11	46
Kumbha	on	Feb.	12	15	37	Siṁha	on	Aug.	16	20	9
Mīna	on	Mar.	14	12	35	Kanyā	on	Sept.	16	20	0
Meṣa	on	Apr.	13	21	12	Tulā	on	Oct.	17	7	51
Vṛṣa	on	May	14	18	10	Vṛścika	on	Nov.	16	7	32
Mithuna	on	June	14	24	51	Dhanus	on	Dec.	15	22	6

Saka era 1868-69, Saṁvat 2003-04 (Mar. 23, Nov. 13), B.S. 1353-54 (Apr. 15),
Kollam era 1122-23 (Aug. 17), 21 Sarvajit (Mar. 23, Apr. 14).

Nirayana Long. of Moon (च ☽ ढ) at 5-30 A.M. I.S.T.

Date	Beng. Date	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 29	13 9	10 13 46	10 26 24	11 9 19	11 22 35	0 6 15	0 20 19	1 4 47
Jan. 5	20 9	1 19 36	2 4 42	2 19 54	3 5 4	3 20 2	4 4 39	4 18 49
12	27 9	5 2 29	5 15 41	5 28 27	6 10 51	6 22 58	7 4 53	7 16 41
19	5 10	7 28 27	8 10 14	8 22 6	9 4 4	9 16 10	9 28 25	10 10 51
26	12 10	10 23 27	11 6 15	11 19 16	0 2 32	0 16 5	0 29 55	1 14 5
Feb. 2	19 10	1 28 33	2 13 16	2 28 9	3 13 5	3 27 55	4 12 30	4 26 43
9	26 10	5 10 29	5 23 47	6 6 38	6 19 6	7 1 16	7 13 12	7 25 1
16	4 11	8 6 47	8 18 36	9 0 32	9 12 38	9 24 55	10 7 26	10 20 9
23	11 11	11 3 6	11 16 13	11 29 32	0 13 0	0 26 39	1 10 29	1 24 29
Mar. 2	18 11	2 8 41	2 23 1	3 7 29	3 21 59	4 6 20	4 20 41	5 4 40
9	25 11	5 18 19	6 1 31	6 14 25	6 26 55	7 9 7	7 21 6	8 2 57
16	2 12	8 14 45	8 26 37	9 8 36	9 20 47	10 3 13	10 15 57	10 28 57
23	9 12	11 12 14	11 25 46	0 9 29	0 23 20	1 7 18	1 21 21	2 5 27
30	16 12	2 19 35	3 3 43	3 17 51	4 1 55	4 15 53	4 29 41	5 13 16
Apr. 6	23 12	5 26 35	6 9 36	6 22 19	7 4 44	7 16 55	7 28 54	8 10 46
13	30 12	8 22 35	9 4 28	9 16 29	9 28 42	10 11 12	10 24 1	11 7 12
20	6 1	11 20 44	0 4 35	0 18 42	1 3 1	1 17 25	2 1 51	2 16 15
27	13 1	3 0 32	3 14 41	3 28 40	4 12 28	4 26 3	5 9 26	5 22 35
May 4	20 1	6 5 30	6 18 11	7 0 39	7 12 54	7 24 59	8 6 56	8 18 47
11	27 1	9 0 37	9 12 30	9 24 30	10 6 42	10 19 11	11 2 0	11 15 13
18	3 2	11 28 50	0 12 51	0 27 14	1 11 53	1 26 42	2 11 34	2 26 20
25	10 2	3 10 56	3 25 16	4 9 18	4 23 0	5 6 22	5 19 28	6 2 18
June 1	17 2	6 14 53	6 27 15	7 9 28	7 21 32	8 3 29	8 15 22	8 27 12
8	24 2	9 9 2	9 20 56	10 2 57	10 15 9	10 27 35	11 10 20	11 23 28
15	31 2	0 7 1	0 21 1	1 5 27	1 20 14	2 5 17	2 20 27	3 5 34
22	7 3	3 20 29	4 5 5	4 19 16	5 3 2	5 16 23	5 29 20	6 11 58
29	14 3	6 24 20	7 6 29	7 18 31	8 0 26	8 12 18	8 24 8	9 5 59
July 6	21 3	9 17 52	9 29 50	10 11 54	10 24 8	11 6 35	11 19 18	0 2 20
13	28 3	0 15 46	0 29 39	1 13 55	1 28 37	2 13 39	2 28 53	3 14 9
20	3 4	3 29 15	4 14 2	4 28 24	5 12 17	5 25 42	6 8 39	6 21 14
27	10 4	7 3 31	7 15 34	7 27 29	8 9 20	8 21 9	9 2 59	9 14 54
Aug. 3	17 4	9 26 53	10 8 59	10 21 12	11 3 34	11 16 8	11 28 54	0 11 56
10	24 4	0 26 18	1 9 1	1 23 6	2 7 35	2 22 24	3 7 26	3 22 34
17	31 4	4 7 37	4 22 25	5 6 50	5 20 47	6 4 16	6 17 16	6 29 53
24	7 5	7 12 10	7 24 13	8 6 7	8 17 57	8 29 47	9 11 41	9 23 41
31	14 5	10 5 49	10 18 6	11 0 33	11 13 10	11 25 58	0 8 57	0 22 8
Sept. 7	21 5	1 5 34	1 19 15	2 3 13	2 17 27	3 1 57	3 16 39	4 1 26
14	28 5	4 16 10	5 0 43	5 14 59	5 28 52	6 12 19	6 25 21	7 8 0
21	4 6	7 20 19	8 2 24	8 14 19	8 26 11	9 8 2	9 19 59	10 2 5
28	11 6	10 14 21	10 26 50	11 9 33	11 22 29	0 5 37	0 18 58	1 2 20
Oct. 5	18 6	1 16 10	2 0 1	2 14 1	2 28 9	3 12 24	3 26 44	4 11 5
12	25 6	4 25 21	5 9 29	5 23 24	6 7 0	6 20 17	7 3 13	7 15 50
19	1 7	7 28 9	8 10 15	8 22 12	9 4 4	9 15 57	9 27 55	10 10 2
26	8 7	10 22 23	11 5 0	11 17 54	0 1 7	0 14 38	0 28 23	1 12 22
Nov. 2	15 7	1 26 29	2 10 42	2 24 58	3 9 12	3 23 24	4 7 30	4 21 29
9	22 7	5 5 19	5 18 58	6 2 25	6 15 38	6 28 36	7 11 19	7 23 47
16	29 7	8 6 3	8 18 7	9 0 4	9 11 56	9 23 47	10 5 44	10 17 49
23	7 8	11 0 8	11 12 45	11 25 43	0 9 4	0 22 49	1 6 55	1 21 19
30	14 8	2 5 56	2 20 39	3 5 21	3 19 54	4 4 16	4 18 22	5 2 12
Dec. 7	21 8	5 15 44	5 29 1	6 12 3	6 24 52	7 7 29	7 19 55	8 2 11
14	28 8	8 14 19	8 26 19	9 8 13	9 20 4	10 1 55	10 13 50	10 25 51
21	5 9	11 8 5	11 20 36	0 3 29	0 16 47	1 0 32	1 14 45	1 29 23
28	12 9	2 14 21	2 29 29	3 14 38	3 29 37	4 14 18	4 28 37	5 12 31
Jan. 4	19 9	5 26 0	6 9 7	6 21 55	7 4 27	7 16 47	7 28 58	8 11 2

EPHEMERIS Longitudes of Planets 1947 A.D.

Ayanamsa on 1st Jan. : 23° 06′ 50″

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd da
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	8	9	3R14 16	6 27 14	8 17 57	8 16 37	7 3 23	8 3 44	8 5 15
3	11	9	3 14 08	6 27 36	8 19 29	8 18 39	7 4 50	8 6 46	8 8 18
5	13	9	3 13 59	6 27 57	8 21 01	8 20 41	7 6 21	8 9 50	8 11 23
7	15	9	3 13 51	6 28 17	8 22 33	8 22 44	7 7 55	8 12 56	8 14 29
9	18	9	3 13 42	6 28 36	8 24 06	8 24 46	7 9 33	8 16 03	8 17 37
11	20	9	3 13 33	6 28 56	8 25 38	8 26 48	7 11 14	8 19 12	8 20 47
13	22	9	3 13 24	6 29 15	8 27 11	8 28 50	7 12 58	8 22 23	8 23 59
15	24	9	3 13 14	6 29 34	8 28 44	9 0 53	7 14 46	8 25 35	8 27 12
17	26	9	3 13 04	6 29 52	9 0 17	9 2 55	7 16 35	8 28 50	9 0 27
19	27	9	3 12 54	7 0 10	9 1 50	9 4 57	7 18 27	9 2 06	9 3 45
21	29	9	3 12 45	7 0 27	9 3 23	9 6 59	7 20 22	9 5 25	9 7 05
23	1	10	3 12 35	7 0 44	9 4 57	9 9 01	7 22 18	9 8 46	9 10 27
25	3	10	3 12 25	7 1 00	9 6 30	9 11 03	7 24 16	9 12 09	9 13 52
27	5	10	3 12 15	7 1 16	9 8 04	9 13 05	7 26 16	9 15 35	9 17 19
29	7	10	3 12 06	7 1 31	9 9 37	9 15 07	7 28 18	9 19 03	9 20 48
31	9	10	3 11 56	7 1 46	9 11 11	9 17 09	8 0 21	9 22 34	9 24 19
Feb. 2	11	10	3 11 46	7 2 00	9 12 45	9 19 11	8 2 25	9 26 06	9 27 52
4	14	10	3 11 36	7 2 14	9 14 19	9 21 13	8 4 31	9 29 39	10 1 26
6	16	10	3 11 27	7 2 27	9 15 53	9 23 14	8 6 38	10 3 13	10 5 00
8	18	10	3 11 17	7 2 39	9 17 27	9 25 16	8 8 46	10 6 46	10 8 32
10	20	10	3 11 08	7 2 51	9 19 01	9 27 17	8 10 55	10 10 17	10 12 01
12	22	10	3 10 59	7 3 02	9 20 35	9 29 19	8 13 05	10 13 43	10 15 23
14	24	10	3 10 50	7 3 13	9 22 10	10 1 20	8 15 16	10 17 01	10 18 36
16	26	10	3 10 42	7 3 23	6 23 44	10 3 21	8 17 28	10 20 07	10 21 34
18	28	10	3 10 33	7 3 32	9 25 19	10 5 22	8 19 41	10 22 56	10 24 13
20	29	10	3 10 25	7 3 40	9 26 53	10 7 23	8 21 55	10 25 25	10 26 29
22	1	11	3 10 17	7 3 48	9 28 28	10 9 24	8 24 09	10 27 26	10 28 14
24	3	11	3 10 09	7 3 55	10 0 02	10 11 25	8 26 24	10 28 54	10 29 26
26	5	11	3 10 02	7 4 02	10 1 37	10 13 26	8 28 40	10 29 47	10 29 59
28	8	11	3 9 54	7 4 08	10 3 11	10 15 27	9 0 56	11 R0 02	10 29 54
Mar. 2	10	11	3 9 47	7 4 13	10 4 46	10 17 27	9 3 12	10 29 37	10 29 11
4	12	11	3 9 41	7 4 17	10 6 20	10 19 27	9 5 29	10 28 38	10 27 56
6	14	11	3 9 35	7 4 20	10 7 55	10 21 27	9 7 47	10 27 09	10 26 16
8	16	11	3 9 29	7 4 23	10 9 29	10 23 28	9 10 05	10 25 19	10 24 20
10	18	11	3 9 24	7 4 25	10 11 04	10 25 27	9 12 24	10 23 21	10 22 21
12	20	11	3 9 18	7 4 26	10 12 38	10 27 27	9 14 43	10 21 23	10 20 28
14	22	11	3 9 13	7 4 27	10 14 13	10 29 27	9 17 02	10 19 37	10 18 50
16	24	11	3 9 09	7 R4 27	10 15 47	11 1 27	9 19 22	10 18 08	10 17 32
18	26	11	3 9 06	7 4 26	10 17 21	11 3 26	9 21 42	10 17 02	10 16 39
20	28	11	3 9 02	7 4 24	10 18 55	11 5 25	9 24 02	10 16 21	10 16 10
22	30	11	3 8 59	7 4 21	10 20 30	11 7 25	9 26 23	10 16 05	10 16 06
24	2	12	3 8 57	7 4 18	10 22 04	11 9 24	9 28 43	10 16 13	10 16 25
26	4	12	3 8 54	7 4 15	10 23 38	11 11 23	10 1 04	10 16 43	10 17 05
28	6	12	3 8 52	7 4 10	10 25 12	11 13 21	10 3 26	10 17 32	10 18 03
30	8	12	3 8 51	7 4 05	10 26 46	11 15 20	10 5 48	10 18 39	10 19 19
Apr. 1	11	12	3 8 51	7 3 59	10 28 20	11 17 19	10 8 10	10 20 03	10 20 50
3	13	12	3 8 50	7 3 52	10 29 54	11 19 17	10 10 32	10 21 40	10 22 34
5	15	12	3D8 50	7 3 44	11 1 28	11 21 15	10 12 54	10 23 30	10 24 30
7	17	12	3 8 51	7 3 36	11 3 01	11 23 13	10 15 16	10 25 32	10 26 37
9	19	12	3 8 52	7 3 27	11 4 35	11 25 11	10 17 38	10 27 44	10 28 54
11	21	12	3 8 53	7 3 18	11 6 08	11 27 09	10 20 01	11 0 06	11 1 20
13	22	12	3 8 55	7 3 08	11 7 42	11 29 06	10 22 24	11 2 37	11 3 55
15	24	12	3 8 57	7 2 57	11 9 15	0 1 04	10 24 47	11 5 15	11 6 38
17	26	12	3 8 59	7 2 46	11 10 48	0 3 01	10 27 10	11 8 02	11 9 28

Ayanamsa on 1st Jan. : 23° 06′ 50″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ गु	म ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	26 12	3 8 59	7 R2 46	11 10 48	0 3 01	10 27 10	11 8 02	11 9 28
19	28 12	3 9 02	7 2 34	11 12 21	0 4 59	10 29 33	11 10 55	11 12 25
21	30 12	3 9 06	7 2 22	11 13 53	0 6 56	11 1 57	11 13 56	11 15 30
23	3 1	3 9 10	7 2 09	11 15 26	0 8 53	11 4 20	11 17 05	11 18 41
25	5 1	3 9 14	7 1 56	11 16 58	0 10 50	11 6 44	11 20 20	11 22 00
27	7 1	3 9 19	7 1 43	11 18 31	0 12 47	11 9 07	11 23 42	11 25 25
29	9 1	3 9 25	7 1 29	11 20 03	0 14 44	11 11 31	11 27 11	11 28 58
May 1	11 1	3 9 30	7 1 14	11 21 35	0 16 40	11 13 55	0 0 47	0 2 37
3	13 1	3 9 36	7 1 00	11 23 07	0 18 36	11 16 19	0 4 30	0 6 21
5	15 1	3 9 42	7 0 45	11 24 39	0 20 33	11 18 43	0 8 20	0 10 18
7	17 1	3 9 48	7 0 31	11 26 11	0 22 29	11 21 07	0 12 17	0 14 18
9	19 1	3 9 55	7 0 16	11 27 42	0 24 25	11 23 32	0 16 21	0 18 25
11	21 1	3 10 03	7 0 00	11 29 14	0 26 21	11 25 56	0 20 31	0 22 38
13	23 1	3 10 11	6 29 45	0 0 45	0 28 17	11 28 21	0 24 46	0 26 55
15	25 1	3 10 19	6 29 30	0 2 15	1 0 13	0 0 45	0 29 05	1 1 16
17	27 1	3 10 28	6 29 15	0 3 46	1 2 08	0 3 10	1 3 28	1 5 39
19	29 1	3 10 36	6 29 00	0 5 16	1 4 04	0 5 34	1 7 50	1 10 01
21	1 2	3 10 45	6 28 46	0 6 46	1 5 59	0 7 59	1 12 11	1 14 20
23	3 2	3 10 55	6 28 30	0 8 16	1 7 55	0 10 23	1 16 28	1 18 31
25	6 2	3 11 05	6 28 15	0 9 46	1 9 50	0 12 48	1 20 38	1 22 41
27	8 2	3 11 15	6 28 00	0 11 16	1 11 45	0 15 13	1 24 42	1 26 40
29	10 2	3 11 25	6 27 45	0 12 45	1 13 41	0 17 38	1 28 36	2 0 29
31	12 2	3 11 35	6 27 31	0 14 14	1 15 36	0 20 03	2 2 20	2 4 08
June 2	14 2	3 11 46	6 27 18	0 15 43	1 17 31	0 22 28	2 5 54	2 7 37
4	16 2	3 11 58	6 27 04	0 17 11	1 19 25	0 24 53	2 9 17	2 10 54
6	18 2	3 12 09	6 26 51	0 18 40	1 21 20	0 27 18	2 12 28	2 14 00
8	19 2	3 12 21	6 26 39	0 20 08	1 23 15	0 29 44	2 15 29	2 15 54
10	21 2	3 12 33	6 26 27	0 21 36	1 25 10	1 2 09	2 18 17	2 19 37
12	23 2	3 12 45	6 26 15	0 23 04	1 27 04	1 4 35	2 20 54	2 22 08
14	25 2	3 12 58	6 26 04	0 24 52	1 28 59	1 7 00	2 23 19	2 24 26
16	27 2	3 13 10	6 25 54	0 26 00	2 0 54	1 9 26	2 25 30	2 26 31
18	29 2	3 13 23	6 25 44	0 27 27	2 2 48	1 11 51	2 27 28	2 28 22
20	2 3	3 13 36	6 25 35	0 28 53	2 4 43	1 14 17	2 29 13	3 0 00
22	4 3	3 13 49	6 25 26	1 0 20	2 6 38	1 16 43	3 0 42	3 1 21
24	6 3	3 14 03	6 25 18	1 1 46	2 8 32	1 19 09	3 1 56	3 2 27
26	8 3	3 14 17	6 25 11	1 3 12	2 10 26	1 21 35	3 2 54	3 3 16
28	10 3	3 14 31	6 25 04	1 4 38	2 12 21	1 24 01	3 3 34	3 3 47
30	12 3	3 14 44	6 24 53	1 6 04	2 14 15	1 26 27	3 3 56	3 4 01
July 2	14 3	3 14 58	6 24 53	1 7 30	2 16 10	1 28 53	3 R4 00	3 3 55
4	16 3	3 15 13	6 24 48	1 8 55	2 18 04	2 1 19	3 3 45	3 3 31
6	18 3	3 15 27	6 24 44	1 10 19	2 19 58	2 3 45	3 3 12	3 2 50
8	20 3	3 15 42	6 24 41	1 11 44	2 21 53	2 6 12	3 2 24	3 1 54
10	22 3	3 15 56	6 24 38	1 13 08	2 23 47	2 8 38	3 1 21	3 0 46
12	24 3	3 16 11	6 24 36	1 14 32	2 25 41	2 11 05	3 0 09	2 29 30
14	26 3	3 16 25	6 24 35	1 15 56	2 27 36	2 13 31	2 28 51	2 28 12
16	28 3	3 16 40	6 D24 35	1 17 19	2 29 30	2 15 58	2 27 33	2 26 56
18	30 3	3 16 55	6 24 35	1 18 43	3 1 25	2 18 25	2 26 21	2 25 48
20	3 4	3 17 10	6 24 36	1 20 06	3 3 19	2 20 52	2 25 18	2 24 53
22	5 4	3 17 26	6 24 38	1 21 28	3 5 14	2 23 19	2 24 31	2 24 14
24	7 4	3 17 41	6 24 41	1 22 51	3 7 09	2 25 46	2 24 03	2 23 57
26	9 4	3 17 57	6 24 44	1 24 13	3 9 03	2 28 14	2 D23 56	2 24 01
28	11 4	3 13 12	6 24 48	1 25 34	3 10 58	3 0 41	2 24 13	2 24 30
30	13 4	3 18 27	6 24 52	1 26 56	3 12 53	3 3 09	2 24 53	2 25 23
Aug. 1	15 4	3 18 41	6 24 56	1 28 16	3 14 47	3 5 35	2 25 58	2 26 40

***Ayanamsa* on 1st Jan : 23° 06′ 50″**

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			मं ♂ मं			र ☉ र			शु ♀ शु			☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	15	4	3	18	41	6	24	56	1	28	16	3	14	47	3	5	3	2	25	58	2	26	40
3	16	4	3	18	57	6	25	02	1	29	37	3	16	42	3	8	03	2	27	28	2	28	22
5	18	4	3	19	12	6	25	09	2	0	58	3	18	37	3	10	30	2	29	22	3	0	2-
7	20	4	3	19	28	6	25	17	2	2	18	3	20	32	3	12	58	3	1	59	3	2	56
9	22	4	3	19	43	6	25	25	2	3	38	3	22	27	3	15	26	3	4	18	3	5	45
11	24	4	3	19	59	6	25	31	2	4	58	3	24	22	3	17	54	3	7	17	3	8	54
13	26	4	3	20	14	6	25	43	2	6	17	3	26	17	3	20	22	3	10	33	3	12	17
15	29	4	3	20	30	6	25	53	2	7	36	3	28	12	3	22	50	3	14	05	3	15	55
17	1	4	3	20	45	6	26	04	2	8	55	4	0	08	3	25	18	3	17	48	3	19	43
19	3	4	3	21	00	6	26	15	2	10	13	4	2	03	3	27	46	3	21	40	3	23	35
21	6	4	3	21	15	6	26	27	2	11	31	4	3	59	4	0	15	3	25	37	3	27	37
23	7	4	3	21	31	6	26	39	2	12	49	4	5	54	4	2	43	3	29	38	4	1	38
25	9	4	3	21	46	6	26	52	2	14	06	4	7	50	4	5	12	4	3	38	4	5	34
27	11	4	3	22	01	6	27	06	2	15	23	4	9	46	4	7	40	4	7	38	4	9	36
29	13	4	3	22	16	6	27	20	2	16	40	4	11	42	4	10	09	4	11	34	4	13	30
31	15	4	3	22	30	6	27	35	2	17	56	4	13	37	4	12	38	4	15	26	4	17	21
Sept. 2	17	4	3	22	45	6	27	50	2	19	12	4	15	34	4	15	07	4	19	14	4	21	07
4	19	4	3	22	59	6	28	06	2	20	28	4	17	3	4	17	35	4	22	58	4	24	48
6	21	4	3	23	14	6	28	22	2	21	43	4	19	26	4	20	04	4	26	37	4	28	24
8	23	4	3	23	28	6	28	38	2	22	57	4	21	22	4	22	33	5	0	11	5	1	56
10	25	4	3	23	42	6	28	55	2	24	12	4	23	19	4	25	02	5	3	40	5	5	23
12	27	4	3	23	56	6	29	13	2	25	26	4	25	16	4	27	32	5	7	05	5	8	46
14	30	4	3	24	10	6	29	32	2	26	39	4	27	13	5	0	01	5	10	25	5	12	04
16	2	5	3	24	24	6	29	50	2	27	53	4	29	09	5	2	31	5	13	41	5	15	18
18	4	5	3	24	37	7	0	09	2	29	06	5	1	07	5	5	00	5	16	53	5	18	27
20	6	5	3	24	51	7	0	29	3	0	18	5	3	04	5	7	29	5	20	01	5	21	33
22	8	5	3	25	04	7	0	48	3	1	30	5	5	01	5	9	58	5	23	04	5	24	35
24	10	5	3	25	17	7	1	08	3	2	42	5	6	59	5	12	27	5	26	04	5	27	32
26	11	5	3	25	30	7	1	29	3	3	53	5	8	56	5	14	57	5	28	59	6	0	26
28	13	5	3	25	42	7	1	50	3	5	03	5	10	54	5	17	27	6	1	51	6	3	15
30	15	5	3	25	54	7	2	11	3	6	13	5	12	52	5	19	56	6	4	38	6	6	00
Oct. 2	17	5	3	26	06	7	2	34	3	7	23	5	14	49	5	22	26	6	7	21	6	8	40
4	19	5	3	26	18	7	2	56	3	8	32	5	16	48	5	24	55	6	9	59	6	11	15
6	21	5	3	26	30	7	3	17	3	9	41	5	18	46	5	27	25	6	12	31	6	13	45
8	23	5	3	26	41	7	3	40	3	10	49	5	20	44	5	29	55	6	14	58	6	16	05
10	25	5	3	26	52	7	4	02	3	11	56	5	22	43	6	2	25	6	17	17	6	18	24
12	28	5	3	27	03	7	4	25	3	13	03	5	24	41	6	4	54	6	19	29	6	20	32
14	30	5	3	27	13	7	4	49	3	14	10	5	26	40	6	7	21	6	21	32	6	22	30
16	2	6	3	27	23	7	5	13	3	15	15	5	28	39	6	9	53	6	23	24	6	24	15
18	4	6	3	27	33	7	5	37	3	16	21	6	0	38	6	12	23	6	25	03	6	25	40
20	6	6	3	27	42	7	6	01	3	17	26	6	2	37	6	14	52	6	26	25	6	26	53
22	8	6	3	27	51	7	6	25	3	18	29	6	4	37	6	17	22	6	27	28	6	27	51
24	10	6	3	28	00	7	6	50	3	19	32	6	6	36	6	19	52	6	28	07	6	28	17
26	12	6	3	28	08	7	7	15	3	20	34	6	8	36	6	22	22	6R	28	19	6	28	12
28	14	6	3	28	16	7	7	40	3	21	36	6	10	36	6	24	51	6	27	58	6	27	33
30	16	6	3	28	24	7	8	0	3	22	37	6	12	35	6	27	21	6	26	59	6	26	16
Nov. 1	18	6	3	28	31	7	8	31	3	23	37	6	14	35	6	29	51	6	25	24	6	24	24
3	20	6	3	28	38	7	8	57	3	24	37	6	16	35	7	2	21	6	23	17	6	22	04
5	22	6	3	28	45	7	9	23	3	25	35	6	18	36	7	4	50	6	20	47	6	19	28
7	24	6	3	28	51	7	9	49	3	26	33	6	20	36	7	7	20	6	18	10	6	16	55
9	27	6	3	28	56	7	10	15	3	27	29	6	22	36	7	9	50	6	15	46	6	14	46
11	29	6	3	29	02	7	10	41	3	28	25	6	24	37	7	12	20	6	13	55	6	13	11
13	1	7	3	29	07	7	11	08	3	29	20	6	26	38	7	14	49	6	12	44	6	12	26
15	3	7	3	29	11	7	11	34	4	0	14	6	28	39	7	17	19	6D	12	20	6	12	25

Longitudes of Planets CONDENSED

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I S.T.						
			♄ श श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	3	7	3 29 11	7 11 34	4 0 14	6 28 39	7 17 19	6D12 20	6 12 25
17	4	7	3 29 16	7 12 01	4 1 06	7 0 40	7 19 48	6 12 41	6 13 06
19	6	7	3 29 20	7 12 27	4 1 58	7 2 41	7 22 18	6 13 41	6 14 23
21	8	7	3 29 23	7 12 54	4 2 48	7 4 42	7 24 48	6 15 12	6 16 07
23	10	7	3 29 25	7 13 20	4 3 38	7 6 43	7 27 18	6 17 08	6 18 13
25	12	7	3 29 28	7 13 47	4 4 26	7 8 44	7 29 47	6 19 23	6 20 36
27	14	7	3 29 30	7 14 14	4 5 12	7 10 46	8 2 17	6 21 52	6 23 10
29	16	7	3 29 31	7 14 41	4 5 58	7 12 47	8 4 46	6 24 31	6 25 54
Dec. 1	18	7	3 29 31	7 15 08	4 6 41	7 14 49	8 7 16	6 27 18	6 28 44
3	21	7	3 29 32	7 15 35	4 7 24	7 16 50	8 9 45	7 0 10	7 1 38
5	23	7	3R29 32	7 16 02	4 8 05	7 18 52	8 12 15	7 3 06	7 4 35
7	25	7	3 29 32	7 16 29	4 8 44	7 20 54	8 14 44	7 6 05	7 7 35
9	27	7	3 29 31	7 16 56	4 9 22	7 22 56	8 17 14	7 9 06	7 10 37
11	29	7	3 29 30	7 17 23	4 9 58	7 24 58	8 19 43	7 12 08	7 13 39
13	1	8	3 29 28	7 17 49	4 10 31	7 27 00	8 22 13	7 15 11	7 16 43
15	3	8	3 29 26	7 18 16	4 11 03	7 29 02	8 24 42	7 18 15	7 19 48
17	5	8	3 29 24	7 18 43	4 11 34	8 1 04	8 27 11	7 21 20	7 22 53
19	6	8	3 29 21	7 19 10	4 12 02	8 3 06	8 29 40	7 24 26	7 25 59
21	8	8	3 29 17	7 19 36	4 12 27	8 5 08	9 2 08	7 27 32	7 29 06
23	10	8	3 29 13	7 20 03	4 12 51	8 7 11	9 4 37	8 0 39	8 2 12
25	12	8	3 29 09	7 20 29	4 13 12	8 9 13	9 7 06	8 3 46	8 5 20
27	15	8	3 29 04	7 20 55	4 13 31	8 11 15	9 9 35	8 6 55	8 8 29
29	17	8	3 28 59	7 21 21	4 13 48	8 13 17	9 12 04	8 10 04	8 11 40
31	19	8	3 28 54	7 21 47	4 14 01	8 15 20	9 14 33	8 13 15	8 14 50
Jan. 2	21	8	3 28 47	7 22 12	4 14 11	8 17 21	9 17 00	8 16 26	8 18 02

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	1 18 27	1 17 2	1 R25 50	5 17 40	3R19 46	23 6 50
February	1	1 16 43	1 15 24	1 24 53	5 R17 35	3 19 6	23 6 56
March	1	1 13 39	1 13 55	1 D24 38	5 17 7	3 18 28	23 6 59
April	1	1 10 34	1 12 16	1 25 10	5 16 18	3 17 58	23 7 2
May	1	1 9 22	1 10 41	1 26 21	5 15 31	3D17 50	23 7 6
June	1	1 9 21	1 9 2	1 28 3	5 15 1	3 18 8	23 7 11
July	1	1 8 58	1 7 27	1 29 49	5D14 57	3 18 46	23 7 16
August	1	1 6 57	1 5 48	2 1 28	5 15 22	3 19 28	23 7 22
September	1	1 3 41	1 4 8	2 2 27	5 16 13	3 20 34	23 7 26
October	1	1 1 5	1 2 33	2 3 3	5 17 17	3 21 18	23 7 29
November	1	1 0 11	1 0 55	2R 2 41	5 18 24	3 21 45	23 7 33
December	1	1 0 15	0 29 20	2 1 41	5 19 18	3R21 45	23 7 37
January	1	0 29 21	0 27 41	2 0 22	5 19 48	3 21 21	23 7 43

Combustion or Heliacal Setting of Planets

Saturn :	From July 20 to Aug. 21.
Jupiter :	From Nov. 20 to Dec. 12.
Mars :	Up to Mar. 8.
Venus :	From Aug. 13 to Sept. 25.
Mercury :	From Jan. 3 to Feb. 8, Mar. 3 to Mar. 15, May 6 to May 26, July 7 to July 22, Aug. 17 to Sept. 12, Nov. 1 to Nov. 11, Dec. 13 to Jan. 22 ('48).

Retrogression of Planets

PLANET	RETROGRADE Date	h	m	Long. s ° ′	DIRECT Date	h	m	Long. s ° ′
Mercury	Feb. 27,	24	3	11 0 2	Mar. 22,	13	49	10 16 5
	June 1,	14	42	3 4 1	July 25,	19	26	2 23 56
	Oct. 25,	22	39	6 28 19	Nov. 15,	6	24	6 12 20
Venus	—	—		—	—	—		—
Mars	—	—		—	—	—		—
Jupiter	Mar. 14	16	57	7 4 27	July 15,	28	36	6 24 35
Saturn	—	—		—	Apr. 3,	24	52	3 8 50
	Dec. 4,	16	59	3 29 32	—	—		—
Uranus	—	—		—	Feb. 25,	5	31	1 24 38
	Oct. 2,	21	30	2 3 3	—	—		—
Neptune	Jan. 12,	20	25	5 17 41	June 19,	22	34	5 14 55
Pluto	—	--		—	Apr. 25,			3 17 50
	Nov. 16,			3 21 50	—	—		—

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
		—				Jan.	7	10	17	Māgha	Vadi
Jan.	22	14	4	Māgha	Sukla	Feb.	5	21	20	Phālguna	,,
Feb.	21	7	30	Phālguna	,,	Mar.	7	8	45	Caitra	,,
Mar.	22	22	4	Caītra	,,	Apr.	5	20	58	Vaiśakha	,,
Apr.	21	9	49	Vaiśākha	,,	May	5	10	23	Jyaiṣṭha	,,
May	20	19	14	Jyaiṣṭha	,,	June	3	24	57	Āṣāḍha	,,
June	18	26	56	Āṣāḍha	,,	July	3	16	8	Śrāvaṇa	,,
July	18	9	45	Śravana (*Mala*)	,,	Aug.	2	7	20	Śrāvaṇa (*Adhika*)	,,
Aug.	16	16	42	Śrāvaṇa (*Suddha*)	,,	Aug.	31	22	4	Bhādra	,,
Sept.	14	24	58	Bhādra	,,	Sept.	30	12	11	Āśvina	,,
Oct.	14	11	40	Āśvina	,,	Oct.	29	25	37	Kārtika	,,
Nov.	12	25	31	Kārtika	,,	Nov.	28	14	15	Agrahā	,,
Dec.	12	18	23	Agrahā	,,	Dec.	27	25	57	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	8	47	Karkaṭa	on	July	16	17	49
Kumbha	on	Feb.	12	21	47	Siṁha	on	Aug.	16	26	15
Mīna	on	Mar.	14	18	42	Kanyā	on	Sept.	16	26	9
Meṣa	on	Apr.	13	27	17	Tulā	on	Oct.	17	14	2
Vṛṣa	on	May	14	24	13	Vṛścika	on	Nov.	16	13	43
Mithuna	on	June	15	6	54	Dhanus	on	Dec.	15	28	15

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1948 A.D. Longitude of Moon CONDENSED

Saka era 1869-70, Samvat 2004-05 (Apr. 10, Nov. 2), B. S. 1354-55 (Apr 14), Kollam era 1123-24 (Aug. 16), 22 Sarvadhārin (Apr. 10, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ চ) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 28	12 9	2 14 21	2 29 29	3 14 38	3 29 37	4 14 18	4 28 37	5 12 31
Jan. 4	19 9	5 26 0	6 9 7	6 21 55	7 4 27	7 16 47	7 28 58	8 11 2
11	26 9	8 23 1	9 4 56	9 16 48	9 28 40	10 10 32	10 22 27	11 4 28
18	4 10	11 16 40	11 29 6	0 11 50	0 24 59	1 8 35	1 22 40	2 7 15
25	11 10	2 22 15	3 7 31	3 22 53	4 8 10	4 23 11	5 7 46	5 21 53
Feb. 1	18 10	6 5 30	6 18 39	7 1 25	7 13 52	7 26 4	8 8 7	8 20 3
8	25 10	9 1 56	9 13 47	9 25 39	10 7 33	10 19 30	11 1 31	11 13 38
15	2 11	11 25 54	0 8 22	0 21 5	1 4 8	1 17 35	2 1 2	2 15 45
22	9 11	3 0 32	3 15 38	4 0 54	4 16 10	5 1 15	5 15 59	6 0 16
29	16 11	6 14 3	6 27 21	7 10 13	7 22 43	8 4 56	8 16 57	8 28 51
Mar. 7	23 11	9 10 42	9 22 33	10 4 26	10 16 24	10 28 28	11 10 40	11 23 0
14	1 12	0 5 28	0 18 8	1 1 1	1 14 9	1 27 35	2 11 22	2 25 29
21	8 12	3 9 55	3 24 38	4 9 32	4 24 29	5 9 19	5 23 54	6 8 8
28	15 12	6 21 58	7 5 21	7 18 19	8 0 55	8 13 12	8 25 17	9 7 12
Apr. 4	22 12	9 19 4	10 0 57	10 12 53	10 24 56	11 7 8	11 19 31	0 2 6
11	29 12	0 14 54	0 27 54	1 11 7	1 24 32	2 8 11	2 22 3	3 6 7
18	5 1	3 20 22	4 4 45	4 19 14	5 3 42	5 16 5	6 2 17	6 16 15
25	12 1	6 29 53	7 13 11	7 26 8	8 8 46	8 21 6	9 3 14	9 15 12
May 2	19 1	9 27 6	10 8 59	10 20 57	11 3 3	11 15 22	11 27 55	0 10 44
9	26 1	0 23 51	1 7 15	1 20 53	2 4 45	2 18 47	3 2 56	3 17 9
16	2 2	4 1 23	4 15 36	4 29 46	5 13 49	5 27 44	6 11 28	6 25 1
23	9 2	7 8 19	7 21 22	8 4 10	8 16 42	8 29 1	9 11 8	9 23 6
30	16 2	10 5 0	10 16 54	10 28 51	11 10 58	11 23 19	0 5 56	0 18 55
June 6	23 2	1 2 16	1 16 0	2 0 3	2 14 22	2 28 52	3 13 26	3 27 57
13	30 2	4 12 22	4 26 36	5 10 37	5 24 24	6 7 58	6 21 18	7 4 26
20	6 3	7 17 22	8 0 7	8 12 41	8 25 3	9 7 15	9 19 18	10 1 14
27	13 3	10 13 6	10 24 58	11 6 54	11 18 59	0 1 18	0 13 56	0 26 56
July 4	20 3	1 10 23	1 24 17	2 8 37	2 23 17	3 8 11	3 23 10	4 8 4
11	27 3	4 22 46	5 7 10	5 21 14	6 4 55	6 18 18	7 1 23	7 14 14
18	2 4	7 26 52	8 9 20	8 21 39	9 3 49	9 15 52	9 27 50	10 9 43
25	9 4	10 21 34	11 3 25	11 15 20	11 27 24	0 9 40	0 22 15	1 5 12
Aug. 1	16 4	1 18 37	2 2 31	2 16 54	3 1 43	3 16 50	4 2 5	4 17 17
8	23 4	5 2 15	5 16 53	6 1 6	6 14 53	6 28 15	7 11 16	7 23 58
15	30 4	8 6 25	8 18 41	9 0 49	9 12 50	9 24 47	10 6 40	10 18 32
22	6 5	11 0 23	11 12 16	11 24 14	0 6 20	0 18 37	1 1 11	1 14 5
29	13 5	1 27 24	2 11 11	2 25 27	3 10 9	3 25 13	4 10 29	4 25 46
Sept. 5	20 5	5 10 53	5 25 41	6 10 5	6 24 1	7 7 30	7 20 33	8 3 15
12	27 5	8 15 39	8 27 51	9 9 52	9 21 48	10 3 41	10 15 32	10 27 25
19	3 6	11 9 20	11 21 20	0 3 26	0 15 40	0 28 6	1 10 46	1 23 43
26	10 6	2 7 0	2 20 40	3 4 44	3 19 11	4 3 58	4 18 58	5 4 3
Oct. 3	17 6	5 19 3	6 3 51	6 18 18	7 2 20	7 15 56	7 29 6	8 11 52
10	24 6	8 24 19	9 6 31	9 18 31	10 0 25	10 12 16	10 24 8	11 6 4
17	31 6	11 18 6	0 0 16	0 12 35	0 25 5	1 7 48	1 20 44	2 3 54
24	7 7	2 17 19	3 1 0	3 14 57	3 29 9	4 13 34	4 28 9	5 12 49
31	14 7	5 27 28	6 11 58	6 26 15	7 10 14	7 23 50	8 7 3	8 19 54
Nov. 7	21 7	9 2 24	9 14 39	9 26 40	10 8 34	10 20 25	11 2 17	11 14 10
14	28 7	11 26 24	0 8 44	0 21 18	1 4 9	1 17 16	2 0 36	2 14 8
21	5 8	2 27 52	3 11 46	3 25 48	4 9 55	4 24 6	5 8 18	5 22 31
28	12 8	6 6 40	6 20 44	7 4 38	7 18 19	8 1 45	8 14 52	8 27 41
Dec. 5	19 8	9 10 12	9 22 26	10 4 29	10 16 22	10 28 13	11 10 4	11 22 3
12	26 8	0 4 12	0 16 39	0 29 24	1 12 30	1 25 57	2 9 44	2 23 47
19	4 9	3 8 1	3 22 20	4 6 40	4 20 56	5 5 6	5 19 8	6 3 2
26	11 9	6 16 47	7 0 24	7 13 51	7 27 8	8 10 13	8 23 6	9 5 45
Jan. 2	18 9	9 18 9	10 0 20	10 12 21	10 24 13	11 6 2	11 17 51	11 29 47

Ayanamsa on 1st Jan. : 23° 07′ 43″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श	बृ ♃ बृ	म ♂ मं	र ⊙ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	20	8	3R28 51	7 22 00	4 14 07	8 16 21	9 15 47	8 14 51	8 16 27
3	23	8	3 28 45	7 22 26	4 14 17	8 18 23	9 18 16	8 18 03	8 19 40
5	25	8	3 28 38	7 22 52	4 14 24	8 20 26	9 20 44	8 21 17	8 22 55
7	26	8	3 28 31	7 23 17	4 14 27	8 22 28	9 23 12	8 24 33	8 26 11
9	28	8	3 28 24	7 23 42	4R14 28	8 24 30	9 25 40	8 27 50	8 29 29
11	30	8	3 28 17	7 24 07	4 14 26	8 26 33	9 28 08	9 1 09	9 2 49
13	2	9	3 28 10	7 24 32	4 14 21	8 28 35	10 0 36	9 4 29	9 6 09
15	4	9	3 28 02	7 24 56	4 14 14	9 0 37	10 3 03	9 7 50	9 9 32
17	6	9	3 27 53	7 25 20	4 14 03	9 2 39	10 5 31	9 11 13	9 12 55
19	8	9	3 27 45	7 25 44	4 13 49	9 4 42	10 7 59	9 14 37	9 16 19
21	10	9	3 27 37	7 26 08	4 13 31	9 6 44	10 10 26	9 18 00	9 19 42
23	12	9	3 27 28	7 26 32	4 13 10	9 8 46	10 12 53	9 21 23	9 23 04
25	14	9	3 27 19	7 26 55	4 12 45	9 10 48	10 15 19	9 24 42	9 26 22
27	16	9	3 27 10	7 27 18	4 12 17	9 12 50	10 17 46	9 27 59	9 29 35
29	19	9	3 27 00	7 27 40	4 11 46	9 14 52	10 20 12	10 1 08	10 2 39
31	21	9	3 26 51	7 28 02	4 11 12	9 16 51	10 22 38	10 4 07	10 5 30
Feb. 2	23	9	3 26 41	7 28 24	4 10 35	9 18 55	10 25 04	10 6 49	10 8 04
4	25	9	3 26 32	7 28 45	4 9 56	9 20 57	10 27 29	10 9 12	10 10 14
6	27	9	3 26 22	7 29 06	4 9 15	9 22 59	10 29 54	10 11 05	10 11 54
8	29	9	3 26 12	7 29 27	4 8 32	9 25 00	11 2 19	10 12 31	10 12 59
10	30	9	3 26 02	7 29 47	4 7 48	9 27 02	11 4 43	10 13 16	10 13 23
12	2	10	3 25 52	8 00 07	4 7 02	9 29 03	11 7 07	10R13 19	10 13 04
14	4	10	3 25 43	8 00 27	4 6 15	10 1 05	11 9 31	10 12 39	10 12 05
16	6	10	3 25 33	8 00 46	4 5 27	10 3 06	11 11 55	10 11 20	10 10 30
18	8	10	3 25 24	8 1 04	4 4 40	10 5 07	11 14 18	10 9 32	10 8 29
20	10	10	3 25 14	8 1 22	4 3 52	10 7 08	11 16 40	10 7 23	10 6 16
22	12	10	3 25 05	8 1 40	4 3 05	10 9 09	11 19 02	10 5 09	10 4 04
24	15	10	3 24 56	8 1 57	4 2 18	10 11 10	11 21 24	10 3 03	10 2 06
26	17	10	3 24 47	8 2 14	4 1 33	10 13 11	11 23 45	10 1 15	10 0 29
28	19	10	3 24 38	8 2 30	4 0 9	10 15 11	11 26 06	9 29 51	9 29 20
Mar. 1	21	10	3 24 24	8 2 46	4 0 07	10 17 12	11 28 26	9 28 5	9 28 39
3	23	10	3 24 20	8 3 01	3 29 27	10 19 12	0 0 46	9 28 28	9D28 25
5	25	10	3 24 12	8 3 15	3 28 49	10 21 12	0 3 05	9 28 28	9 28 37
7	27	10	3 24 04	8 3 29	3 28 13	10 23 12	0 5 23	9 28 52	9 29 13
9	29	10	3 23 57	8 3 42	3 27 40	10 25 12	0 7 41	9 29 3	10 0 09
11	1	11	3 23 49	8 3 55	3 27 10	10 27 12	0 9 58	10 0 44	10 1 23
13	2	11	3 23 42	8 4 07	3 26 43	10 29 12	0 12 14	10 2 06	10 2 52
15	4	11	3 23 35	8 4 19	3 26 19	11 1 12	0 14 30	10 3 42	10 4 36
17	6	11	3 23 29	8 4 30	3 25 58	11 3 11	0 16 45	10 5 32	10 6 31
19	9	11	3 23 23	8 4 40	3 25 40	11 5 10	0 18 59	10 7 33	10 8 37
21	11	11	3 23 17	8 4 49	3 25 25	11 7 10	0 21 13	10 9 44	10 10 53
23	13	11	3 23 12	8 4 58	3 25 14	11 9 09	0 23 25	10 12 04	10 13 17
25	15	11	3 23 07	8 5 06	3 25 05	11 11 07	0 25 37	10 14 32	10 15 49
27	18	11	3 23 03	8 5 14	3 25 00	11 13 06	0 27 47	10 17 08	10 18 29
29	20	11	3 22 58	8 5 21	3D24 58	11 15 05	0 29 57	10 19 51	10 21 15
31	22	11	3 22 51	8 5 27	3 24 59	11 17 03	1 2 05	10 22 41	10 24 08
Apr. 2	24	11	3 22 50	8 5 32	3 25 03	11 19 02	1 4 13	10 25 37	10 27 07
4	25	11	3 22 47	8 5 37	3 25 09	11 21 00	1 6 19	10 28 39	11 0 13
6	27	11	3 22 45	8 5 41	3 25 18	11 22 58	1 8 23	11 1 48	11 3 24
8	29	11	3 22 42	8 5 44	3 25 30	11 24 56	1 10 27	11 5 02	11 6 42
10	1	12	3 22 40	8 5 46	3 25 44	11 26 54	1 12 29	11 8 23	11 10 05
12	3	12	3 22 39	8 5 48	3 26 01	11 28 52	1 14 30	11 11 49	11 13 35
14	5	12	3 22 38	8R 5 49	3 26 20	0 0 49	1 16 29	11 15 22	11 17 11
16	7	12	3 22 38	8 5 49	3 26 42	0 2 47	1 18 26	11 19 01	11 20 54

Ayanamsa on 1st Jan. : 23° 07′ 43″

Date	Tithi & Month	श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.16	7 12	3R22 38	8R5 49	3 26 42	0 2 47	1 18 26	11 19 02	11 20 54
18	9 12	3D22 38	8 5 48	3 27 05	0 4 44	1 20 21	11 22 47	11 24 42
20	12 12	3 22 38	8 5 46	3 27 31	0 6 41	1 22 15	11 26 38	11 28 36
22	14 12	3 22 39	8 5 44	3 27 59	0 8 38	1 24 06	0 0 36	0 2 37
24	16 12	3 22 40	8 5 41	3 28 29	0 10 35	1 25 55	0 4 39	0 6 43
26	18 12	3 22 42	8 5 38	3 29 00	0 12 32	1 27 42	0 8 49	0 10 55
28	20 12	3 22 44	8 5 34	3 29 34	0 14 29	1 29 26	0 13 02	0 15 10
30	22 12	3 22 46	8 5 29	4 0 09	0 16 25	2 1 07	0 17 19	0 19 29
May 2	24 12	3 22 49	8 5 23	4 0 46	0 18 22	2 2 45	0 21 38	0 23 48
4	26 12	3 22 52	8 5 17	4 1 24	0 20 18	2 4 20	0 25 57	0 28 06
6	27 12	3 22 56	8 5 10	4 2 04	0 22 14	2 5 52	1 0 14	1 2 20
8	29 12	3 23 00	8 5 02	4 2 45	0 24 10	2 7 20	1 4 25	1 6 28
10	1 1	3 23 05	8 4 53	4 3 28	0 26 06	2 8 44	1 8 30	1 10 29
12	4 1	3 23 10	8 4 44	4 4 11	0 28 02	2 10 04	1 12 25	1 14 19
14	6 1	3 23 15	8 4 34	4 4 57	0 29 58	2 11 19	1 16 10	1 17 58
16	8 1	3 23 21	8 4 24	4 5 43	1 1 54	2 12 29	1 19 43	1 21 25
18	10 1	3 23 27	8 4 13	4 6 31	1 3 49	2 13 34	1 23 04	1 24 39
20	12 1	3 23 34	8 4 02	4 7 20	1 5 45	2 14 32	1 26 12	1 27 40
22	14 1	3 23 41	8 3 50	4 8 10	1 7 40	2 15 25	1 29 00	2 0 28
24	16 1	3 23 48	8 3 37	4 9 00	1 9 35	2 16 11	2 1 47	2 3 01
26	18 1	3 23 56	8 3 24	4 9 52	1 11 31	2 16 49	2 4 13	2 5 20
28	20 1	3 24 04	8 3 11	4 10 45	1 13 26	2 17 20	2 6 24	2 7 24
30	22 1	3 24 12	8 2 57	4 11 39	1 15 21	2 17 42	2 8 21	2 9 13
June 1	24 1	3 24 21	8 2 43	4 12 34	1 17 16	2 17 56	2 10 01	2 10 46
3	26 1	3 24 30	8 2 29	4 13 29	1 19 11	2R18 01	2 11 26	2 12 01
5	38 1	3 24 39	8 2 14	4 14 26	1 21 06	2 17 57	2 12 33	2 13 00
7	30 1	3 24 49	8 1 59	4 15 23	1 23 00	2 17 43	2 13 23	2 13 41
9	2 2	3 24 59	8 1 44	4 16 21	1 24 55	2 17 20	2 13 54	2 14 03
11	4 2	3 25 09	8 1 29	4 17 20	1 26 50	2 16 47	2 14 08	2R14 08
13	7 2	3 25 19	8 1 13	4 18 19	1 28 45	2 16 04	2 14 03	2 13 54
15	9 2	3 25 30	8 0 58	4 19 19	2 0 39	2 15 13	2 13 41	2 13 24
17	11 2	3 25 41	8 0 43	4 20 20	2 2 34	2 14 15	2 13 3	2 12 39
19	13 2	3 25 52	8 0 28	4 21 22	2 4 28	2 13 10	2 12 12	2 11 42
21	15 2	3 26 04	8 0 12	4 22 24	2 6 23	2 11 59	2 11 10	2 10 36
23	17 2	3 26 16	7 29 57	4 23 27	2 8 17	2 10 46	2 10 02	2 9 26
25	19 2	3 26 28	7 29 42	4 24 30	2 10 12	2 9 31	2 8 51	2 8 17
27	21 2	3 26 40	7 29 27	4 25 34	2 12 06	2 8 16	2 7 44	2 7 13
29	22 2	3 26 52	7 29 13	4 26 39	2 14 00	2 7 04	2 6 45	2 6 20
July 1	24 2	3 27 05	7 28 59	4 27 44	2 15 55	2 5 56	2 5 58	2 5 39
3	26 2	3 27 18	7 28 45	4 28 50	2 17 49	2 4 59	2 5 25	2 5 16
5	28 2	3 27 31	7 28 31	4 29 56	2 19 44	2 3 58	2 5 10	2D5 10
7	1 3	3 27 44	7 28 18	5 1 03	2 21 38	2 3 11	2 5 15	2 5 25
9	3 3	3 28 58	7 28 05	5 2 10	2 23 33	2 2 32	2 5 40	2 6 00
11	5 3	3 28 12	7 27 53	5 3 18	2 25 27	2 2 02	2 6 25	2 6 56
13	7 3	3 28 26	7 27 41	5 4 26	2 27 21	2 1 42	2 7 31	2 8 12
15	9 3	3 28 39	7 27 30	5 5 35	2 29 16	2 1 32	2 8 59	2 9 50
17	12 3	3 28 53	7 27 20	5 6 44	3 1 10	2D1 31	2 10 46	2 11 48
19	14 3	3 29 08	7 27 10	5 7 54	3 3 05	2 1 39	2 12 54	2 14 05
21	15 3	3 29 22	7 27 00	5 9 04	3 4 59	2 1 56	2 15 21	2 16 41
23	17 3	3 29 36	7 26 51	5 10 14	3 6 54	2 2 21	2 18 06	2 19 35
25	19 3	3 29 51	7 26 43	5 11 25	3 8 48	2 2 54	2 21 08	2 22 46
27	21 3	4 0 06	7 26 35	5 12 43	3 10 43	2 3 35	2 24 27	2 26 12
29	23 3	4 0 21	7 26 28	5 13 49	3 12 38	2 4 23	2 28 01	2 29 53
31	25 3	4 0 35	7 26 22	5 15 01	3 14 32	2 5 17	3 1 47	3 3 44

Ayanamsa on 1st Jan. : 23° 07′ 43″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
July 31	25	3	4	0	35	7R	26	22	5	15	01	3	14	32	2	5	17	3	1	47	3	3	44
Aug. 2	27	3	4	0	50	7	26	17	5	16	14	3	16	27	2	6	17	3	5	42	3	7	43
4	29	3	4	1	05	7	26	12	5	17	27	3	18	22	2	7	23	3	9	45	3	11	48
6	1	4	4	1	20	7	26	08	5	18	40	3	20	17	2	8	34	3	13	52	3	15	56
8	4	4	4	1	35	7	26	04	5	19	54	3	22	12	2	9	49	3	18	00	3	20	04
10	6	4	4	1	50	7	26	02	5	21	09	3	24	07	2	11	10	3	22	08	3	24	11
12	8	4	4	2	06	7	26	00	5	22	23	3	26	02	2	12	33	3	26	14	3	28	15
14	10	4	4	2	21	7	25	59	5	23	38	3	27	58	2	14	01	4	0	15	4	2	15
16	12	4	4	2	36	7D	25	58	5	24	54	3	29	53	2	15	33	4	4	13	4	6	09
18	14	4	4	2	51	7	25	59	5	26	10	4	1	48	2	17	08	4	8	05	4	9	59
20	16	4	4	3	07	7	26	00	5	27	26	4	3	44	2	18	46	4	11	52	4	13	44
22	18	4	4	3	22	7	26	02	5	28	42	4	5	59	2	20	27	4	15	34	4	17	22
24	19	4	4	3	37	7	26	04	5	29	59	4	7	35	2	22	10	4	19	10	4	20	56
26	21	4	4	3	52	7	26	07	6	1	16	4	9	31	2	23	57	4	22	40	4	24	24
28	23	4	4	4	08	7	26	11	6	2	34	4	11	27	2	25	45	4	26	05	4	27	46
30	25	4	4	4	23	7	26	16	6	3	52	4	13	23	2	27	36	4	29	25	5	1	04
Sept. 1	28	4	4	4	38	7	26	21	6	5	10	4	15	19	2	29	29	5	2	41	5	4	16
3	30	4	4	4	53	7	26	28	6	6	29	4	17	15	3	1	23	5	5	51	5	7	24
5	2	5	4	5	08	7	26	35	6	7	48	4	19	11	3	3	20	5	8	56	5	10	26
7	5	5	4	5	23	7	26	42	6	9	07	4	21	08	3	5	18	5	11	56	5	13	24
9	7	5	4	5	38	7	26	50	6	10	27	4	23	04	3	7	18	5	14	51	5	16	17
11	9	5	4	5	53	7	26	59	6	11	47	4	25	01	3	9	19	5	17	41	5	19	01
13	11	5	4	6	08	7	27	09	6	13	03	4	26	58	3	11	22	5	20	26	5	21	46
15	12	5	4	6	23	7	27	19	6	14	28	4	28	55	3	13	26	5	23	05	5	24	23
17	14	5	4	6	37	7	27	30	6	15	49	5	0	52	3	15	32	5	25	39	5	26	53
19	16	5	4	6	51	7	27	42	6	17	10	5	2	49	3	17	38	5	28	06	5	29	17
21	18	5	4	7	05	7	27	54	6	18	32	5	4	46	3	19	46	6	0	26	6	1	34
23	20	5	4	7	19	7	28	07	6	19	54	5	6	43	3	21	55	6	2	39	6	3	42
25	22	5	4	7	33	7	28	20	6	21	16	5	8	41	3	24	05	6	4	42	6	5	40
27	24	5	4	7	47	7	28	34	6	22	39	5	10	39	3	26	17	6	6	36	6	7	28
29	26	5	4	8	01	7	28	49	6	24	02	5	12	36	3	28	28	6	8	17	6	9	03
Oct. 1	28	5	4	8	14	7	29	04	6	25	25	5	14	34	4	0	40	6	9	44	6	10	22
3	1	6	4	8	27	7	29	20	6	26	49	5	16	33	4	2	54	6	10	55	6	11	23
5	3	6	4	8	40	7	29	36	6	28	12	5	18	31	4	5	09	6	11	46	6	12	03
7	5	6	4	8	53	7	29	53	6	29	36	5	20	29	4	7	24	6	12	13	6R	12	17
9	7	6	4	9	06	8	0	10	7	1	01	5	22	28	4	9	41	6	12	14	6	12	03
11	9	6	4	9	18	8	0	25	7	2	26	5	24	26	4	11	57	6	11	44	6	11	17
13	11	6	4	9	30	8	0	46	7	3	51	5	26	25	4	14	15	6	10	42	6	9	58
15	13	6	4	9	42	8	1	05	7	5	16	5	28	24	4	16	33	6	9	06	6	8	07
17	14	6	4	9	51	8	1	24	7	6	42	6	0	23	4	18	52	6	7	01	6	5	52
19	16	6	4	10	05	8	1	44	7	8	08	6	2	22	4	21	12	6	4	39	6	3	24
21	18	6	4	10	16	8	2	04	7	9	34	6	4	21	4	23	32	6	2	10	6	1	03
23	20	6	4	10	27	8	2	24	7	11	00	6	6	21	4	25	53	5	29	55	5	28	56
25	22	6	4	10	38	8	2	45	7	12	27	6	8	20	4	28	14	5	28	07	5	27	28
27	25	6	4	10	48	8	3	06	7	13	54	6	10	20	5	0	35	5	27	00	5	26	43
29	27	6	4	10	58	8	3	28	7	15	21	6	12	20	5	2	58	5	26	38	5	26	45
31	29	6	4	11	07	8	3	50	7	16	49	6	14	20	5	5	20	5	27	00	5	27	27
Nov. 2	1	7	4	11	17	8	4	12	7	18	17	6	16	20	5	7	43	5	28	03	5	28	48
4	3	7	4	11	26	8	4	35	7	19	45	6	18	20	5	10	07	5	29	40	6	0	38
6	5	7	4	11	35	8	4	58	7	21	13	6	20	21	5	12	31	6	1	42	6	2	52
8	7	7	4	11	43	8	5	22	7	22	42	6	22	21	5	14	55	6	4	06	6	5	23
10	9	7	4	11	51	8	5	46	7	24	11	6	24	22	5	17	20	6	6	44	6	8	07
12	11	7	4	11	58	8	6	10	7	25	40	6	26	23	5	19	45	6	9	33	6	11	01
14	13	7	4	12	05	8	6	34	7	27	09	6	28	23	5	22	11	6	12	30	6	14	00

1949 A.D. Longitude of Moon CONDENSED

Saka era 1870-71, Samvat 2005-06 (Mar. 30, Oct. 22), B.S. 1355-56 (Apr. 14), Kollam era 1124-25 (Aug. 17), 23 Virodhin (Mar. 30, Apr. 13).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.26	11	9	6	16	47	7	0	24	7	13	51	7	27	8	8	10	13	8	23	6	9	5	45
Jan. 2	18	9	9	18	9	10	0	20	10	12	21	10	24	13	11	6	2	11	17	51	11	29	47
9	25	9	0	11	55	0	24	20	1	7	7	1	20	20	2	3	59	2	18	4	3	2	31
16	3	10	3	17	12	4	2	0	4	16	46	5	1	24	5	15	47	5	29	54	6	13	44
23	10	10	6	27	18	7	10	38	7	23	45	8	6	39	8	19	23	9	1	57	9	14	21
30	17	10	9	26	34	10	8	38	10	20	34	11	2	24	11	14	10	11	25	58	0	7	52
Feb. 6	24	10	0	19	57	1	2	18	1	15	1	1	28	10	2	11	49	2	25	57	3	10	32
13	1	11	3	25	27	4	10	35	4	25	44	5	10	45	5	25	30	6	9	53	6	23	53
20	8	11	7	7	31	7	20	47	8	3	44	8	16	26	8	28	55	9	11	13	9	23	22
27	15	11	10	5	24	10	17	20	10	29	11	11	10	59	11	22	46	0	4	36	0	16	31
Mar. 6	22	11	0	28	37	1	10	57	1	23	36	2	6	39	2	20	9	3	4	9	3	18	36
13	29	11	4	3	28	4	18	37	5	3	53	5	19	6	6	4	7	6	18	48	7	3	4
20	6	12	7	16	53	8	0	16	8	13	16	8	25	55	9	8	18	9	20	28	10	2	28
27	13	12	10	14	21	10	26	11	11	7	59	11	19	48	0	1	39	0	13	35	0	25	38
Apr. 3	20	12	1	7	51	1	20	17	2	3	0	2	16	2	2	29	26	3	13	14	3	27	27
10	27	12	4	12	2	4	26	56	5	12	1	5	27	9	6	12	11	6	26	58	7	11	23
17	4	1	7	25	23	8	8	56	8	22	3	9	4	46	9	17	10	9	29	18	10	11	15
24	11	1	10	23	5	11	4	53	11	16	41	11	28	33	0	10	31	0	22	37	1	4	53
May 1	18	1	1	17	21	2	0	2	2	12	57	2	26	7	3	9	34	3	23	18	4	7	20
8	25	1	4	21	38	5	6	10	5	20	53	6	5	41	6	20	27	7	5	4	7	19	26
15	1	2	8	3	26	8	17	3	9	0	14	9	13	2	9	25	29	10	7	38	10	19	35
22	8	2	11	1	26	11	13	14	11	25	4	0	7	0	0	19	6	1	1	25	1	13	58
29	15	2	1	26	45	2	9	47	2	23	3	3	6	31	3	20	11	4	4	1	4	18	0
June 5	22	2	5	2	8	5	16	23	6	0	41	6	15	6	6	29	28	7	13	44	7	27	48
12	29	2	8	11	37	8	25	6	9	8	14	9	21	1	10	3	27	10	15	38	10	27	36
19	5	3	11	9	26	11	21	15	0	3	7	0	15	7	0	27	20	1	9	50	1	22	37
26	12	3	2	5	44	2	19	9	3	2	49	3	16	42	4	0	43	4	14	50	4	28	58
July 3	19	3	5	13	7	5	27	15	6	11	20	6	25	22	7	9	19	7	23	9	8	6	49
10	26	3	8	20	17	9	3	30	9	16	26	9	29	5	10	11	27	10	23	34	11	5	30
17	1	4	11	17	20	11	29	9	0	11	1	0	23	3	1	5	19	1	17	54	2	0	51
24	8	4	2	14	12	2	27	55	3	11	58	3	26	16	4	10	43	4	25	12	5	9	39
31	15	4	5	24	0	6	8	11	6	22	12	7	6	2	7	19	42	8	3	11	8	16	28
Aug. 7	22	4	8	29	33	9	12	25	9	25	4	10	7	29	10	19	42	11	1	43	11	13	36
14	29	4	11	25	24	0	7	12	0	19	3	1	1	4	1	13	20	1	25	55	2	8	54
21	4	5	2	22	20	3	6	11	3	20	27	4	5	3	4	19	51	5	4	44	5	19	34
28	11	5	6	4	14	6	18	39	7	2	47	7	16	37	8	0	9	8	13	24	8	26	24
Sept. 4	18	5	9	9	10	9	21	43	10	4	4	10	16	15	10	28	17	11	10	12	11	22	1
11	25	5	0	3	48	0	15	36	0	27	28	1	9	29	1	21	43	2	4	16	2	17	11
18	1	6	3	0	32	3	14	21	3	28	36	4	13	16	4	28	14	5	13	21	5	28	29
25	8	6	6	13	29	6	28	12	7	12	35	7	26	34	8	10	8	8	23	20	9	6	12
Oct. 2	15	6	9	18	46	10	1	6	10	13	14	10	25	14	11	7	7	11	18	56	0	0	44
9	22	6	0	12	32	0	24	23	1	6	20	1	18	25	2	0	42	2	13	14	2	26	5
16	29	6	3	9	19	3	22	57	4	7	1	4	21	30	5	6	21	5	21	27	6	6	39
23	6	7	6	21	49	7	6	46	7	21	23	8	5	35	8	19	19	9	2	36	9	15	28
30	13	7	9	27	59	10	10	12	10	22	13	11	4	6	11	15	54	11	27	42	0	9	30
Nov. 6	20	7	0	21	23	1	3	22	1	15	29	1	27	45	2	10	12	2	22	51	3	5	46
13	27	7	3	18	57	4	2	27	4	16	17	5	0	29	5	15	0	5	29	48	6	14	17
20	4	8	6	29	49	7	14	45	7	29	27	8	13	46	8	27	38	9	11	2	9	23	59
27	11	8	10	6	33	10	18	46	11	0	46	11	12	36	11	24	23	0	6	11	0	18	3
Dec. 4	18	8	1	0	3	1	12	12	1	24	33	2	7	6	2	19	51	3	2	47	3	15	55
11	25	8	3	29	15	4	12	47	4	26	32	5	10	30	5	24	42	6	9	7	6	23	41
18	3	9	7	8	20	7	22	58	8	7	26	8	21	38	9	5	28	9	18	53	10	1	53
25	10	9	10	14	30	10	26	46	11	8	47	11	20	38	0	2	26	0	14	14	0	26	9
Jan. 1	17	9	1	8	15	1	20	35	2	3	9	2	16	0	2	29	7	3	12	27	3	25	58

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 08′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	2	9	4 R12 50	8 17⊙14	9 3 55	8 17 07	7 21 24	8 28 12	8 29 50
3	4	9	4 12 46	8 17 41	9 5 29	8 19 09	7 23 54	9 1 27	9 3 03
5	6	9	4 12 42	8 18 09	9 7 03	8 21 11	7 26 23	9 4 40	9 6 16
7	8	9	4 12 38	8 18 37	9 8 37	8 23 14	7 28 53	9 7 51	9 9 25
9	9	9	4 12 33	8 19 05	9 10 11	8 25 16	8 1 23	9 10 59	9 12 31
11	11	9	4 12 28	8 19 32	9 11 46	8 27 18	8 3 53	9 14 02	9 15 30
13	13	9	4 12 23	8 20 00	9 13 20	8 29 20	8 6 23	9 16 56	9 18 19
15	16	9	4 12 17	8 20 28	9 14 55	9 1 23	8 8 53	9 19 39	9 20 54
17	18	9	4 12 11	8 20 56	9 16 29	9 3 25	8 11 23	9 22 05	9 23 10
19	20	9	4 12 04	8 21 23	9 18 04	9 5 27	8 13 52	9 24 09	9 25 01
21	22	9	4 11 57	8 21 50	9 19 38	9 7 29	8 16 22	9 25 45	9 26 20
23	24	9	4 11 50	8 22 17	9 21 13	9 9 31	8 18 52	9 26 45	9 27 00
25	27	9	4 11 43	8 22 44	9 22 48	9 11 33	8 21 22	9 R27 04	9 26 56
27	28	9	4 11 35	8 23 12	9 24 23	9 13 35	8 23 53	9 26 37	9 26 07
29	30	9	4 11 27	8 23 39	9 25 58	9 15 37	8 26 23	9 25 26	9 24 35
31	2	10	4 11 18	8 24 05	9 27 33	9 17 39	8 28 52	9 23 36	9 22 31
Feb. 2	4	10	4 11 10	8 24 32	9 29 08	9 19 41	9 1 22	9 21⊙21	9 20 02
4	6	10	4 11 01	8 24 58	10 0 43	9 21 43	9 3 52	9 18 55	9 17 43
6	8	10	4 10 52	8 25 25	10 2 18	9 23 44	9 6 22	9 16 34	9 15 30
8	10	10	4 10 43	8 25 51	10 3 53	9 25 46	9 8 52	9 14 33	9 13 42
10	12	10	4 10 34	8 26 17	10 5 28	9 27 47	9 11 22	9 12 59	9 12 24
12	14	10	4 10 25	8 26 42	10 7 03	9 29 49	9 13 52	9 11 58	9 11 39
14	16	10	4 10 16	8 27 08	10 8 38	10 1 50	9 16 22	9 11 28	9 D11 24
16	19	10	4 10 06	8 27 33	10 10 13	10 3 51	9 18 52	9 11 28	9 11 38
18	21	10	4 9 57	8 27 58	10 11 47	10 5 52	9 21 22	9 11 55	9 12 17
20	23	10	4 9⊙47	8 28 23	10 13 22	10 7 53	9 23 52	9 12 44	9 13 17
22	25	10	4 9 37	8 28 47	10 14 57	10 9 54	9 26 22	9 13 54	9 14 36
24	27	10	4 9 27	8 29 11	10 16 32	10 11 55	9 28 51	9 15 21	9 16 10
26	29	10	4 9 17	8 29 35	10 18 07	10 13 55	10 1 21	9 17 02	9 17 58
28	1	11	4 9 08	8 29 58	10 19 41	10 15 56	10 3 51	9 18 56	9 19 57
Mar. 2	2	11	4 8 58	9 0 22	10 21 16	10 17 57	10 6 21	9 21 01	9 22 07
4	4	11	4 8 49	9 0 45	10 22 50	10 19 57	10 8 50	9 23 15	9 24 25
6	6	11	4 8 40	9 1 07	10 24 24	10 21 57	10 11 20	9 25 37	9 26 51
8	8	11	4 8 31	9 1 29	10 25 58	10 23 57	10 13 50	9 28 07	9 29 24
10	10	11	4 8 22	9 1 51	10 27 32	10 25 57	10 16 20	10 0 44	10 2 04
12	12	11	4 8 13	9 2 12	10 29 06	10 27 57	10 18 49	10 3 27	10 4 50
14	15	11	4 8 04	9 2 33	11 0 40	10 29 56	10 21 19	10 6 16	10 7 42
16	17	11	4 7 56	9 2 54	11 2 14	11 1 56	10 23 48	10 9 10	10 10 39
18	19	11	4 7 48	9 3 14	11 3 48	11 3 55	10 26 17	10 12 10	10 13 42
20	21	11	4 7 40	9 3 34	11 5 21	11 5 55	10 28 46	10 15 15	10 16 50
22	23	11	4 7 32	9 3 53	11 6 54	11 7 54	11 1 16	10 18 26	10 20 03
24	25	11	4 7 25	9 4 12	11 8 27	11 9 53	11 3 45	10 21 41	10 23 21
26	27	11	4 7 18	9 4 30	11 10 00	11 11 52	11 6 14	10 25 02	10 26 45
28	29	11	4 7 11	9 4 48	11 11 34	11 13 50	11 8 43	10 28 28	11 0 14
30	1	12	4 7 04	9 5 06	11 13 07	11 15 49	11 11 12	11 2 00	11 3 48
Apr. 1	3	12	4 6 58	9 5 23	11 14 40	11 17 48	11 13 41	11 5 37	11 7 28
3	5	12	4 6 52	9 5 39	11 16 13	11 19 46	11 16 10	11 9 20	11 11 13
5	6	12	4 6 46	9 5 55	11 17 45	11 21 44	11 18 39	11 13 08	11 15 04
7	8	12	4 6 41	9 6 10	11 19 18	11 23 42	11 21 08	11 17 02	11 19 01
9	11	12	4 6 36	9 6 25	11 20 50	11 25 40	11 23 36	11 21 01	11 23 03
11	13	12	4 6 31	9 6 39	11 22 22	11 27 38	11 26 05	11 25 05	11 27 09
13	15	12	4 6 27	9 6 52	11 23 53	11 29 35	11 28 34	11 29⊙13	0 1 19
15	18	12	4 6 24	9 7 05	11 25 25	0 1 33	0 1 03	0 3 25	0 5 32
17	20	12	4 6 21	9 7 18	11 26 56	0 3 30	0 3 31	0 7 39	0 9 46

1949 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 08′ 38″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ न			गु ♃ रु			म ♂ ग			र ☉ व			शु ♀ क			बु ☿ ध			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr 17	20	12	4	R6	21	9	7	18	11	26	56	0	3	30	0	3	31	0	7	39	0	9	46
19	22	12	4	6	18	9	7	30	11	28	28	0	5	27	0	6	00	0	11	53	0	13	59
21	24	12	4	6	15	9	7	41	11	29	59	0	7	25	0	8	28	0	16	04	0	18	09
23	26	12	4	6	13	9	7	51	0	1	30	0	9	22	0	10	56	0	20	11	0	22	12
25	27	12	4	6	12	9	8	01	0	3	00	0	11	18	0	13	24	0	24	11	0	26	07
27	29	12	4	6	11	9	8	10	0	4	31	0	13	15	0	15	52	0	28	01	0	29	52
29	1	1	4	6	10	9	8	18	0	6	01	0	15	12	0	18	20	1	1	40	1	3	24
May 1	3	1	4	6	10	9	8	26	0	7	31	0	17	08	0	20	48	1	5	05	1	6	42
3	5	1	4	D6	10	9	8	33	0	9	01	0	19	05	0	23	16	1	8	15	1	9	45
5	7	1	4	6	10	9	8	39	0	10	31	0	21	01	0	25	44	1	11	10	1	12	31
7	9	1	4	6	11	9	8	44	0	12	00	0	22	57	0	28	12	1	13	48	1	15	01
9	11	1	4	6	13	9	8	49	0	13	30	0	24	53	1	0	40	1	16	10	1	17	14
11	14	1	4	6	15	9	8	53	0	14	59	0	26	49	1	3	08	1	18	13	1	19	08
13	16	1	4	6	17	9	8	56	0	16	28	0	28	45	1	5	36	1	19	59	1	20	45
15	18	1	4	6	20	9	8	59	0	17	56	1	0	41	1	8	03	1	21	26	1	22	03
17	20	1	4	6	23	9	9	00	0	19	25	1	2	36	1	10	31	1	22	35	1	23	02
19	22	1	4	6	26	9	9	01	0	20	53	1	4	32	1	12	59	1	23	25	1	23	42
21	24	1	4	6	30	9	R9	01	0	22	21	1	6	27	1	15	27	1	23	54	1	24	01
23	26	1	4	6	34	9	9	01	0	23	49	1	8	23	1	17	54	1	24	04	1	R24	02
25	28	1	4	6	39	9	9	00	0	25	17	1	10	18	1	20	21	1	23	56	1	23	45
27	30	1	4	6	44	9	8	58	0	26	44	1	12	13	1	22	48	1	23	30	1	23	11
29	2	2	4	6	49	9	8	55	0	28	11	1	14	08	1	25	16	1	22	49	1	22	24
31	4	2	4	6	55	9	8	52	0	29	38	1	16	04	1	27	43	1	21	56	1	21	26
June 2	6	2	4	7	01	9	8	47	1	1	05	1	17	59	2	0	10	1	20	54	1	20	21
4	8	2	4	7	08	9	8	42	1	2	31	1	19	53	2	2	37	1	19	47	1	19	14
6	10	2	4	7	15	9	8	36	1	3	57	1	21	48	2	5	05	1	18	41	1	18	09
8	12	2	4	7	22	9	8	30	1	5	23	1	23	43	2	7	32	1	17	39	1	17	11
10	15	2	4	7	30	9	8	23	1	6	49	1	25	38	2	9	59	1	16	46	1	16	24
12	17	2	4	7	38	9	8	15	1	8	15	1	27	33	2	12	26	1	16	06	1	15	51
14	19	2	4	7	46	9	8	06	1	9	40	1	29	27	2	14	53	1	15	40	1	15	33
16	21	2	4	7	55	9	7	57	1	11	05	2	1	22	2	17	19	1	D15	31	1	15	33
18	23	2	4	8	04	9	7	47	1	12	30	2	3	16	2	19	46	1	15	40	1	15	51
20	24	2	4	8	13	9	7	37	1	13	55	2	5	11	2	22	13	1	16	07	1	16	28
22	26	2	4	8	22	9	7	26	1	15	20	2	7	05	2	24	40	1	16	54	1	17	24
24	28	2	4	8	32	9	7	15	1	16	44	2	9	00	2	27	06	1	17	52	1	18	37
26	30	2	4	8	42	9	7	03	1	18	08	2	10	54	2	29	33	1	19	20	1	20	08
28	2	3	4	8	53	9	6	50	1	19	32	2	12	49	3	1	59	1	21	00	1	21	56
30	4	3	4	9	04	9	6	37	1	20	56	2	14	43	3	4	26	1	22	56	1	24	01
July 2	7	3	4	9	15	9	6	23	1	22	19	2	16	37	3	6	52	1	25	10	1	26	22
4	9	3	4	9	26	9	6	09	1	23	42	2	18	32	3	9	19	1	27	38	1	28	59
6	11	3	4	9	38	9	5	55	1	25	05	2	20	26	3	11	45	2	0	23	2	1	51
8	13	3	4	9	49	9	5	41	1	26	28	2	22	21	3	14	11	2	3	23	2	4	58
10	15	3	4	10	01	9	5	26	1	27	50	2	24	15	3	16	37	2	6	37	2	8	19
12	17	3	4	10	13	9	5	11	1	29	12	2	26	09	3	19	03	2	10	05	2	11	54
14	19	3	4	10	26	9	4	55	2	0	34	2	28	04	3	21	29	2	13	46	2	15	41
16	21	3	4	10	38	9	4	40	2	1	56	2	29	58	3	23	55	2	17	38	2	19	38
18	23	3	4	10	51	9	4	25	2	3	18	3	1	53	3	26	21	2	21	40	2	23	43
20	25	3	4	11	04	9	4	10	2	4	40	3	3	47	3	28	47	2	25	48	2	27	54
22	27	3	4	11	17	9	3	54	2	6	01	3	5	42	4	1	12	3	0	01	3	2	08
24	29	3	4	11	30	9	3	39	2	7	22	3	7	36	4	3	38	3	4	15	3	6	23
26	1	4	4	11	44	9	3	23	2	8	42	3	9	31	4	6	03	3	8	30	3	10	36
28	3	4	4	11	58	9	3	08	2	10	03	3	11	26	4	8	29	3	12	42	3	14	47
30	5	4	4	12	12	9	2	53	2	11	23	3	13	20	4	10	54	3	16	51	3	18	53
Aug. 1	7	4	4	12	26	9	2	38	2	12	43	3	15	15	4	13	19	3	20	54	3	22	54

***Ayanamsa* on 1st Jan. : 23° 08' 38"**

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	गु ♃ गु	म ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Aug. 1	7 4	4 12 26	9R 2 38	2 12 43	3 15 15	4 13 19	3 20 54	3 22 54
3	10 4	4 12 40	9 2 23	2 14 03	3 17 10	4 15 41	3 24 52	3 26 49
5	12 4	4 12 54	9 2 09	2 15 23	3 19 05	4 18 09	3 28 44	4 0 38
7	14 4	4 13 09	9 1 55	2 16 42	3 21 00	4 20 34	4 2 30	4 4 21
9	16 4	4 13 23	9 1 41	2 18 01	3 22 55	4 22 59	4 6 10	4 7 58
11	18 4	4 13 38	9 1 28	2 19 20	3 24 50	4 25 21	4 9 44	4 11 28
13	19 4	4 13 52	9 1 15	2 20 39	3 26 45	4 27 49	4 13 11	4 14 53
15	21 4	4 14 07	9 1 03	2 21 57	3 28 40	5 0 13	4 16 33	4 18 11
17	23 4	4 14 22	9 0 51	2 23 16	4 0 36	5 2 37	4 19 48	4 21 24
19	25 4	4 14 37	9 0 40	2 24 34	4 2 31	5 5 01	4 22 58	4 24 31
21	27 4	4 14 52	9 0 29	2 25 52	4 4 27	5 7 25	4 26 02	4 27 32
23	29 4	4 15 07	9 0 19	2 27 09	4 6 22	5 9 49	4 29 00	5 0 27
25	1 5	4 15 22	9 0 10	2 28 27	4 8 18	5 12 13	5 1 52	5 3 16
27	4 5	4 15 37	9 0 01	2 29 44	4 10 14	5 14 36	5 4 28	5 5 59
29	6 5	4 15 52	8 29 53	3 1 01	4 12 10	5 17 00	5 7 18	5 8 35
31	8 5	4 16 07	8 29 46	3 2 17	4 14 06	5 19 23	5 9 51	5 11 05
Sept. 2	10 5	4 16 22	8 29 39	3 3 34	4 16 02	5 21 46	5 12 17	5 13 27
4	12 5	4 16 37	8 29 33	3 4 50	4 17 58	5 24 09	5 14 35	5 15 41
6	14 5	4 16 52	8 29 28	3 6 06	4 19 55	5 26 31	5 16 44	5 17 45
8	16 5	4 17 08	8 29 23	3 7 21	4 21 51	5 28 54	5 18 44	5 19 40
10	18 5	4 17 23	8 29 19	3 8 37	4 23 47	6 1 16	5 20 33	5 21 23
12	20 5	4 17 38	8 29 16	3 9 52	4 25 44	6 3 38	5 22 10	5 22 53
14	21 5	4 17 53	8 29 14	3 11 07	4 27 41	6 6 00	5 23 33	5 24 09
16	23 5	4 18 08	8 29 12	3 12 22	4 29 38	6 8 22	5 24 40	5 25 08
18	25 5	4 18 23	8 29 11	3 13 36	5 1 35	6 10 43	5 25 27	5 25 43
20	28 5	4 18 37	8D29 11	3 14 50	5 3 32	6 13 05	5 25 54	5 25 58
22	30 5	4 18 52	8 29 12	3 16 04	5 5 30	6 15 25	5R25 56	5 25 47
24	2 6	4 19 07	8 29 14	3 17 18	5 7 27	6 17 46	5 25 31	5 25 07
26	5 6	4 19 22	8 29 16	3 18 31	5 9 25	6 20 07	5 24 36	5 23 58
28	7 6	4 19 36	8 29 19	3 19 44	5 11 23	6 22 27	5 23 13	5 22 21
30	9 6	4 19 50	8 29 23	3 20 57	5 13 20	6 24 47	5 21 23	5 20 30
Oct. 2	11 6	4 20 05	8 29 28	3 22 10	5 15 18	6 27 06	5 19 14	5 18 06
4	13 6	4 20 19	8 29 34	3 23 22	5 17 17	6 29 26	5 16 57	5 15 49
6	14 6	4 20 33	8 29 40	3 24 34	5 19 15	7 1 45	5 14 44	5 13 45
8	16 6	4 20 47	8 29 47	3 25 46	5 21 13	7 4 03	5 12 52	5 12 08
10	18 6	4 21 00	8 29 54	3 26 57	5 23 12	7 6 21	5 11 31	5 11 06
12	20 6	4 21 14	9 0 03	3 28 08	5 25 10	7 8 39	5 10 52	5D10 48
14	22 6	4 21 27	9 0 12	3 29 19	5 27 09	7 10 57	5 10 55	5 11 13
16	24 6	4 21 41	9 0 22	4 0 29	5 29 08	7 13 16	5 11 41	5 12 18
18	26 6	4 21 54	9 0 32	4 1 39	6 1 07	7 15 30	5 13 05	5 13 59
20	28 6	4 22 07	9 0 43	4 2 49	6 3 07	7 17 46	5 14 59	5 16 06
22	1 7	4 22 19	9 0 55	4 3 59	6 5 06	7 20 02	5 17 19	5 18 37
24	3 7	4 22 31	9 1 08	4 5 07	6 7 05	7 22 17	5 19 59	5 21 24
26	5 7	4 22 43	9 1 21	4 6 15	6 9 05	7 24 31	5 22 51	5 24 22
28	7 7	4 22 55	9 1 35	4 7 23	6 11 05	7 26 45	5 25 55	5 27 30
30	9 7	4 23 07	9 1 50	4 8 31	6 13 05	7 28 58	5 29 05	6 0 41
Nov. 1	11 7	4 23 18	9 2 05	4 9 39	6 15 05	8 1 10	6 2 18	6 3 53
3	13 7	4 23 29	9 2 20	4 10 46	6 17 05	8 3 22	6 5 33	6 7 11
5	15 7	4 23 40	9 2 36	4 11 52	6 19 05	8 5 33	6 8 50	6 10 28
7	17 7	4 23 50	9 2 53	4 12 59	6 21 05	8 7 43	6 12 06	6 13 45
9	18 7	4 24 01	9 3 10	4 14 04	6 23 06	8 9 51	6 15 22	6 17 00
11	20 7	4 24 11	9 3 28	4 15 09	6 25 06	8 11 59	6 18 37	6 20 15
13	22 7	4 24 21	9 3 46	4 16 14	6 27 07	8 14 06	6 21 52	6 23 29
15	24 7	4 24 30	9 4 05	4 17 18	6 29 08	8 16 12	6 25 06	6 26 42

1949 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			शा ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	24	7	4 24 30	9 4 05	4 17 18	6 29 03	8 16 12	6 25 06	6 26 42
17	27	7	4 24 39	9 4 25	4 18 22	7 1 09	8 18 17	6 28 18	6 29 54
19	29	7	4 24 47	9 4 45	4 19 25	7 3 10	8 20 20	7 1 30	7 3 05
21	1	8	4 24 55	9 5 05	4 20 28	7 5 11	8 22 22	7 4 10	7 6 15
23	4	8	4 25 03	9 5 26	4 21 30	7 7 13	8 24 22	7 7 50	7 9 24
25	6	8	4 25 11	9 5 47	4 22 31	7 9 14	8 26 21	7 10 58	7 12 32
27	8	8	4 25 18	9 6 08	4 23 32	7 11 15	8 28 18	7 14 06	7 15 40
29	9	8	4 25 25	9 6 30	4 24 32	7 13 17	9 0 13	7 17 14	7 18 48
Dec. 1	11	8	4 25 31	9 6 53	4 25 31	7 15 19	9 2 06	7 20 22	7 21 56
3	13	8	4 25 37	9 7 16	4 26 30	7 17 20	9 3 56	7 23 30	7 25 03
5	15	8	4 25 43	9 7 39	4 27 28	7 19 22	9 5 44	7 26 37	7 28 11
7	17	8	4 25 48	9 8 02	4 28 25	7 21 24	9 7 30	7 29 44	8 1 18
9	19	8	4 25 53	9 8 26	4 29 22	7 23 26	9 9 13	8 2 51	8 4 25
11	21	8	4 25 57	9 8 50	5 0 18	7 25 27	9 10 52	8 5 58	8 7 32
13	23	8	4 26 01	9 9 15	5 1 12	7 27 29	9 12 28	8 9 05	8 10 37
15	25	8	4 26 04	9 9 39	5 2 05	7 29 32	9 14 00	8 12 10	8 13 43
17	27	8	4 26 07	9 10 04	5 2 58	8 1 34	9 15 28	8 15 16	8 16 48
19	30	8	4 26 10	9 10 29	5 3 51	8 3 36	9 16 53	8 18 20	8 19 51
21	2	9	4 26 12	9 10 55	5 4 42	8 5 38	9 18 12	8 21 22	8 22 52
23	4	9	4 26 14	9 11 21	5 5 32	8 7 40	9 19 27	8 24 22	8 25 50
25	6	9	4 26 15	9 11 47	5 6 20	8 9 43	9 20 36	8 27 17	8 28 42
27	8	9	4 26 16	9 12 13	5 7 08	8 11 45	9 21 40	9 0 06	9 1 27
29	10	9	4R26 16	9 12 40	5 7 55	8 13 47	9 22 36	9 2 45	9 3 59
31	11	9	4 26 16	9 13 07	5 8 40	8 15 50	9 23 26	9 5 10	9 6 21
Jan. 2	13	9	4 26 16	9 13 34	5 9 25	8 17 52	9 24 09	9 7 19	9 8 14

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	0 9 26	0 8 18	2 R 4 54	5 21 58	3 R 22 58	23 8 35
February	1	0 5 53	0 6 39	2 3 48	5R21 57	3 22 16	23 8 44
March	1	0 3 23	0 5 10	2 3 22	5 21 31	3 21 37	23 8 47
April	1	0 2 32	0 3 32	2D 3 41	5 20 45	3 21 7	23 8 51
May	1	0 2 36	0 1 56	2 4 42	5 19 57	3D21 0	23 8 55
June	1	0 1 50	0 0 18	2 6 19	5 19 23	3 21 17	23 9 0
July	1	11 29 26	11 28 42	2 8 6	5D19 15	3 21 57	23 9 5
August	1	11 26 10	11 27 4	2 9 50	5 19 38	3 22 49	23 9 11
September	1	11 23 58	11 25 25	2 11 11	5 20 27	3 23 45	23 9 15
October	1	11 23 29	11 23 49	2 11 50	5 21 29	3 24 31	23 9 19
November	1	11 23 30	11 22 11	2R 11 41	5 22 37	3 24 59	23 9 22
December	1	11 22 16	11 20 36	2 10 49	5 23 33	3 R25 0	23 9 27
January	1	11 19 5	11 18 57	2 9 31	5 24 6	3 24 37	23 9 34

Combustion or Heliacal Setting of Planets

Saturn :	From Aug. 18 to Sept. 18.
Jupiter ;	Up to Jan. 13.
Mars :	From Jan. 13 to May 20.
Venus :	From Mar. 25 to May 10.
Mercury :	From Jan. 28 to Feb. 8, Apr. 1 to Apr. 24, May 26 to June 12, July 16 to Aug. 8, Sept. 28 to Oct. 10, Nov. 3 to Dec. 13.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	*m*	s	°	′		*h*	*m*	s	°	′
Mercury	Jan. 24, May 23, Sept. 21,	25 7 9	39 57 9	9 1 2	27 24 25	4 4 58	Feb. 14, June 15, Oct. 12,	29 29 25	5 27 21	9 1 5	11 15 10	24 31 48
Venus	—	—			—		—	—			—	
Mars	—	—			—		—	—			—	
Jupiter	May 20	21	26	9	9	1	Sept. 18,	24	26	8	29	11
Saturn	— Dec. 30,	— 10	18	4	— 26	16	May 1, —	15 —	36	4	6 —	10
Uranus	— Oct. 11,	— 13	5	2	— 11	52	Mar. 5, —	7 —	8	2	3 —	22
Neptune	Jan. 16,	11	21	5	22	2	June 24,	6	11	5	19	14
Pluto	— Nov. 20,	--		3	— 25	2	Apr. 28, —	—		3	21 —	0

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	*h*	*m*				*d*	*h*	*m*		
		—				Jan.	14	27	29	Māgha	Vadi
Jan.	29	8	12	Māgha	Sukla	Feb.	13	14	38	Phālguna	,,
Feb.	27	26	25	Phālguna	,,	Mar.	14	24	33	Caitra	,,
Mar.	29	20	41	Caitra	,,	Apr.	13	9	38	Vaiśākha	,,
Apr.	28	13	32	Vaiśākha	,,	May	12	18	21	Jyaiṣṭha	,,
May	27	27	54	Jyaiṣṭha	,,	June	10	27	15	Āṣāḍha	,,
June	26	15	32	Āṣāḍha	,,	July	10	13	11	Śrāvaṇa	,,
July	25	25	3	Śravana	,,	Aug.	8	25	3	Bhādra	,,
Aug.	24	9	29	Bhādra	,,	Sept.	7	15	29	Āśvina	,,
Sept.	22	17	51	Āśvina	,,	Oct.	7	8	22	Kārtika	,,
Oct.	21	26	53	Kārtika	,,	Nov.	5	26	39	Marga.	,,
Nov.	20	12	59	Agrahā	,,	Dec.	5	20	43	Pauṣa	,,
Dec.	19	24	25	Pauṣa	,,			—			

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	13	21	2	Karkaṭa	on	July	16	6	17
Kumbha	on	Feb.	12	10	0	Siṁha	on	Aug.	16	14	41
Mīna	on	Mar.	14	6	56	Kanyā	on	Sept.	16	14	33
Meṣa	on	Apr.	13	15	34	Tulā	on	Oct.	16	26	25
Vṛṣa	on	May	14	12	36	Vṛścika	on	Nov.	15	26	8
Mithuna	on	June	14	19	20	Dhanus	on	Dec.	15	16	41

1950 A.D. Longitude of Moon CONDENSED

Saka era 1871-72, Saṁvat 2006-07 (Mar. 19, Nov. 10), B. S. 1356-57 (Apr. 14),
Kollam era 1125-26 (Aug. 17), 24 Vikrita (Mar. 19, Apr. 14).

Nirayana Long. of Moon (च) ६) at 5-30 A.M. I.S.T.

Date	Beng. Date		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.25	10	9	10	14	30	10	26	46	11	8	47	11	20	38	0	2	26	0	14	14	0	26	9
Jan. 1	17	9	1	8	15	1	20	35	2	3	9	2	16	0	2	29	7	3	12	27	3	25	58
8	24	9	4	9	39	4	23	27	5	7	21	5	21	20	6	5	24	6	19	32	7	3	43
15	1	10	7	17	56	8	2	5	8	16	7	8	29	57	9	13	31	9	26	46	10	9	40
22	8	10	10	22	14	11	4	30	11	16	32	11	28	25	0	10	13	0	22	02	1	3	58
29	15	10	1	16	6	1	28	30	2	11	12	2	24	15	3	7	39	3	21	21	4	5	19
Feb. 5	22	10	4	19	27	5	3	41	5	17	57	6	2	12	6	16	23	7	0	30	7	14	30
12	29	10	7	28	23	8	12	7	8	25	42	9	9	5	9	22	14	10	5	9	10	17	48
19	7	11	11	0	12	11	12	23	11	24	23	0	6	15	0	18	3	0	29	53	1	11	48
26	14	11	1	23	55	2	6	17	2	19	0	3	2	6	3	15	36	3	29	31	4	13	46
Mar. 5	21	11	4	28	17	5	12	58	5	27	42	6	12	23	6	26	54	7	11	13	7	25	16
12	28	11	8	9	3	8	22	34	9	5	49	9	18	49	10	1	35	10	14	9	10	26	30
19	5	12	11	8	41	11	20	43	0	2	37	0	14	27	0	26	15	1	8	5	1	20	1
26	12	12	2	2	6	2	14	26	2	27	4	3	10	5	3	23	32	4	7	25	4	21	44
Apr. 2	19	12	5	6	25	5	21	23	6	6	28	6	21	33	7	6	28	7	21	6	8	5	23
9	26	12	8	19	16	9	2	45	9	15	52	9	28	40	10	11	10	10	23	28	11	5	34
16	3	1	11	17	33	11	29	26	0	11	16	0	23	5	1	4	55	1	16	48	1	28	46
23	10	1	2	10	53	2	23	12	3	5	49	3	18	43	4	2	1	4	15	45	4	29	56
30	17	1	5	14	33	5	29	30	6	14	42	6	29	58	7	15	8	8	0	3	8	14	34
May 7	24	1	8	28	39	9	12	14	9	25	23	10	8	7	10	20	31	11	2	41	11	14	39
14	31	1	11	26	31	0	8	19	0	20	7	1	1	57	1	13	51	1	25	50	2	7	56
21	7	2	2	20	10	3	2	36	3	15	14	3	28	9	4	11	22	4	24	57	5	8	56
28	14	2	5	23	19	6	8	4	6	23	6	7	8	17	7	23	26	8	8	25	8	23	3
June 4	21	2	9	7	15	9	20	57	10	4	10	10	16	57	10	29	22	11	11	30	11	23	26
11	28	2	0	5	16	0	17	3	0	28	52	1	10	46	1	22	47	2	4	55	2	17	13
18	3	3	2	29	41	3	12	19	3	25	9	4	8	11	4	21	28	5	5	2	5	18	53
25	10	3	6	3	3	6	17	31	7	2	15	7	17	7	8	2	1	8	16	47	9	1	19
July 2	17	3	9	15	26	9	29	8	10	12	23	10	25	12	11	7	39	11	19	49	0	1	47
9	24	3	0	13	38	0	25	27	1	7	19	1	19	18	2	1	26	2	13	46	2	26	18
16	31	3	3	9	2	3	21	59	4	5	3	4	18	27	5	1	58	5	15	40	5	29	33
23	7	4	6	13	38	6	27	54	7	12	18	7	26	47	8	11	16	8	25	38	9	9	49
30	14	4	9	23	41	10	7	13	10	20	22	11	3	9	11	15	36	11	27	47	0	9	46
Aug. 6	21	4	0	21	39	1	3	30	1	15	25	1	27	27	2	9	41	2	22	9	3	4	54
13	28	4	3	17	55	4	1	12	4	14	43	4	28	27	5	12	20	5	26	21	6	10	28
20	3	5	6	24	39	7	8	51	7	23	3	8	7	12	8	21	15	9	5	10	9	18	54
27	10	5	10	2	23	10	15	36	10	28	31	11	11	9	11	23	31	0	5	40	0	17	39
Sept.3	17	5	0	29	32	1	11	24	1	23	19	2	5	22	2	17	37	3	0	9	3	13	0
10	24	5	3	26	11	4	9	44	4	23	36	5	7	45	5	22	6	6	6	34	6	21	4
17	31	5	7	5	31	7	19	51	8	4	1	8	17	59	9	1	44	9	15	16	9	28	34
24	7	6	10	11	37	10	24	27	11	7	5	11	19	29	0	1	43	0	13	47	0	25	44
Oct. 1	14	6	1	7	36	1	19	27	2	1	21	2	13	22	2	25	35	3	8	3	3	20	53
8	21	6	4	4	5	4	17	43	5	1	46	5	16	12	6	0	56	6	15	50	7	0	47
15	28	6	7	15	38	8	0	16	8	14	36	8	28	35	9	12	13	9	25	31	10	8	30
22	5	7	10	21	14	11	3	45	11	16	4	11	28	15	0	10	19	0	22	17	1	4	10
29	12	7	1	16	2	1	27	53	2	9	47	2	21	47	3	3	57	3	16	20	3	29	3
Nov. 5	19	7	4	12	9	4	25	41	5	9	41	5	24	10	6	9	2	6	24	12	7	9	28
12	26	7	7	24	41	8	9	40	8	24	16	9	8	26	9	22	8	10	5	24	10	18	16
19	3	8	11	0	49	11	13	8	11	25	16	0	7	16	0	19	11	1	1	4	1	12	56
26	10	8	1	24	49	2	6	43	2	18	41	3	0	44	3	12	56	3	25	19	4	7	57
Dec. 3	17	8	4	20	55	5	4	17	5	18	6	6	2	23	6	17	6	7	2	12	7	17	30
10	24	8	8	2	51	8	18	1	9	2	51	9	17	13	10	1	6	10	14	28	10	27	24
17	1	9	11	9	57	11	22	12	0	4	15	0	16	11	0	28	2	1	9	53	1	21	45
24	8	9	2	3	41	2	15	42	2	27	48	3	10	1	3	22	22	4	4	53	4	17	37
31	15	9	5	0	35	5	13	53	5	27	32	6	11	34	6	26	0	7	10	46	7	25	47

Ayanamsa on 1st Jan. : 23° 09′ 34″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	12 9	4 *R*26 16	9 13 20	5 9 03	8 16 51	9 23 48	9 6 21	9 7 19
3	14 9	4 26 15	9 13 48	5 9 46	8 18 53	9 24 27	9 8 14	9 9 04
5	16 9	4 26 14	9 14 15	5 10 28	8 20 55	9 24 58	9 9 45	9 10 17
7	18 9	4 26 12	9 14 42	5 11 09	8 22 58	9 25 19	9 10 40	9 10 53
9	20 9	4 26 11	9 15 10	5 11 48	8 25 00	9 R25 31	9 R10 55	9 10 46
11	23 9	4 26 09	9 15 38	5 12 26	8 27 02	9 25 33	9 10 25	9 9 52
13	25 9	4 26 06	9 16 06	5 13 02	8 29 04	9 25 27	9 9 07	9 8 14
15	27 9	4 26 03	9 16 34	5 13 37	9 1 07	9 25 09	9 7 12	9 6 02
17	29 9	4 25 59	9 17 02	5 14 09	9 3 09	9 24 43	9 4 47	9 3 29
19	1 10	4 25 55	9 17 30	5 14 40	9 5 11	9 24 06	9 2 11	9 0 55
21	3 10	4 25 51	9 17 59	5 15 09	9 7 13	9 23 20	8 29 43	8 28 37
23	5 10	4 25 46	9 18 27	5 15 35	9 9 15	9 22 26	8 27 39	8 26 49
25	7 10	4 25 41	9 18 55	5 16 00	9 11 27	9 21 24	8 26 08	8 25 37
27	9 10	4 25 35	9 19 24	5 16 22	9 13 19	9 20 16	8 25 14	8 25 00
29	11 10	4 25 29	9 19 52	5 16 42	9 15 21	9 19 04	8 D24 55	8 24 57
31	12 10	4 25 23	9 20 21	5 17 00	9 17 23	9 17 50	8 25 06	8 25 22
Feb. 2	15 10	4 25 17	9 20 50	5 17 16	9 19 25	9 16 36	8 25 45	8 26 13
4	17 10	4 25 10	9 21 18	5 17 28	9 21 27	9 15 23	8 26 47	8 27 26
6	19 10	4 25 02	9 21 47	5 17 39	9 23 28	9 14 15	8 28 09	8 28 56
8	21 10	4 24 55	9 22 16	5 17 46	9 25 30	9 13 13	8 29 47	9 0 41
10	23 10	4 24 47	9 22 44	5 17 51	9 27 31	9 12 17	9 1 39	9 2 39
12	25 10	4 24 39	9 23 13	5 R17 52	9 29 33	9 11 30	9 3 42	9 4 47
14	28 10	4 24 31	9 23 41	5 17 51	10 1 34	9 10 52	9 5 55	9 7 04
16	30 10	4 24 22	9 24 10	5 17 47	10 3 35	9 10 24	9 8 16	9 9 29
18	2 11	4 24 14	9 24 38	5 17 40	10 5 36	9 10 05	9 10 44	9 12 01
20	3 11	4 24 05	9 25 07	5 17 30	10 7 37	9 9 57	9 13 19	9 14 38
22	5 11	4 23 56	9 25 35	5 17 16	10 9 38	9 D9 58	9 15 59	9 17 21
24	7 11	4 23 46	9 26 03	5 16 59	10 11 39	9 10 09	9 18 45	9 20 10
26	9 11	4 23 37	9 26 31	5 16 39	10 13 40	9 10 23	9 21 36	9 23 03
28	12 11	4 23 28	9 26 59	5 16 17	10 15 40	9 10 57	9 24 31	9 26 01
Mar. 2	13 11	4 23 18	9 27 27	5 15 51	10 17 41	9 11 33	9 27 31	9 29 03
4	15 11	4 23 09	9 27 55	5 15 22	10 19 41	9 12 17	10 0 36	10 2 10
6	17 11	4 22 59	9 28 22	5 14 50	10 21 41	9 13 07	10 3 45	10 5 21
8	20 11	4 22 49	9 28 50	5 14 17	10 23 41	9 14 05	10 6 58	10 8 36
10	22 11	4 22 40	9 29 17	5 13 40	10 25 41	9 15 09	10 10 16	10 11 56
12	24 11	4 22 30	9 29 44	5 13 01	10 27 41	9 16 18	10 13 38	10 15 21
14	26 11	4 22 21	10 0 11	5 12 20	10 29 41	9 17 33	10 17 05	10 18 51
16	28 11	4 22 11	10 0 37	5 11 37	11 1 40	9 18 52	10 20 37	10 22 26
18	30 11	4 22 02	10 1 04	5 10 53	11 3 40	9 20 15	10 24 14	10 26 04
20	2 12	4 21 53	10 1 30	5 10 08	11 5 39	9 21 43	10 27 55	10 29 48
22	4 12	4 21 44	10 1 56	5 9 21	11 7 38	9 23 15	11 1 42	11 3 37
24	5 12	4 21 35	10 2 22	5 8 34	11 9 37	9 24 50	11 5 33	11 7 30
26	7 12	4 21 26	10 2 47	5 7 48	11 11 36	9 26 28	11 9 29	11 11 23
28	9 12	4 21 18	10 3 13	5 7 01	11 13 35	9 28 08	11 13 29	11 15 31
30	11 12	4 21 09	10 3 38	5 6 15	11 15 34	9 29 52	11 17 33	11 19 36
Apr. 1	13 12	4 21 01	10 4 02	5 5 30	11 17 32	10 1 39	11 21 39	11 23 43
3	16 12	4 20 53	10 4 27	5 4 46	11 19 31	10 3 27	11 25 46	11 27 50
5	18 12	4 20 46	10 4 51	5 4 04	11 21 29	10 5 18	11 29 53	0 1 55
7	20 12	4 20 38	10 5 15	5 3 24	11 23 27	10 7 11	0 3 56	0 5 55
9	22 12	4 20 31	10 5 38	5 2 46	11 25 25	10 9 05	0 7 53	0 9 48
11	25 12	4 20 24	10 6 01	5 2 10	11 27 22	10 11 02	0 11 41	0 13 30
13	26 12	4 20 18	10 6 24	5 1 37	11 29 20	10 13 00	0 15 17	0 17 00
15	28 12	4 20 12	10 6 46	5 1 07	0 1 18	10 15 00	0 18 39	0 20 15
17	30 12	4 20 06	10 7 08	5 0 39	0 3 15	10 17 00	0 21 45	0 23 11

Ayanamsa on 1st Jan. : 23° 09' 34"

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																			
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Apr.17	30	12	4R	20	06	10	7	08	5R	0	39	0	3	15	10	17	00	0	21	45	0	23	11
19	2	1	4	20	00	10	7	30	5	0	15	0	5	13	10	19	03	0	24	33	0	25	49
21	4	1	4	19	55	10	7	51	4	29	53	0	7	10	10	21	06	0	27	01	0	28	08
23	6	1	4	19	51	10	8	12	4	29	35	0	9	07	10	23	11	0	29	09	1	0	05
25	8	1	4	19	46	10	8	32	4	29	20	0	11	04	10	25	16	1	0	55	1	1	41
27	10	1	4	19	42	10	8	52	4	29	08	0	13	00	10	27	23	1	2	20	1	2	54
29	12	1	4	19	39	10	9	11	4	28	59	0	14	57	10	29	30	1	3	22	1	3	45
May 1	14	1	4	19	36	10	9	30	4	28	53	0	16	54	11	1	38	1	4	02	1	4	14
3	16	1	4	19	33	10	9	48	4	28	51	0	18	50	11	3	48	1	4	20	1R	4	20
5	19	1	4	19	31	10	10	06	4D	28	52	0	20	46	11	5	68	1	4	16	1	4	07
7	21	1	4	19	29	10	10	24	4	28	55	0	22	42	11	8	08	1	3	53	1	3	35
9	23	1	4	19	27	10	10	41	4	29	01	0	24	38	11	10	20	1	3	13	1	2	47
11	25	1	4	19	26	10	10	57	4	29	10	0	26	34	11	12	32	1	2	19	1	1	47
13	27	1	4	19	25	10	11	13	4	29	22	0	28	30	11	14	44	1	1	14	1	0	39
15	29	1	4D	19	25	10	11	28	4	29	36	1	0	26	11	16	58	1	0	04	0	29	28
17	30	1	4	19	25	10	11	43	4	29	54	1	2	22	11	19	12	0	28	54	0	28	20
19	2	2	4	19	26	10	11	57	5	0	13	1	4	17	11	21	26	0	27	48	0	27	18
21	4	2	4	19	27	10	12	10	5	0	35	1	6	13	11	23	41	0	26	50	0	26	26
23	6	2	4	19	28	10	12	23	5	1	00	1	8	08	11	25	56	0	26	05	0	25	48
25	8	2	4	19	30	10	12	35	5	1	27	1	10	04	11	28	11	0	25	35	0	25	26
27	10	2	4	19	32	10	12	46	5	1	55	1	11	59	0	0	27	0	25	21	0D	25	21
29	13	2	4	19	35	10	12	57	5	2	26	1	13	54	0	2	44	0	25	26	0	25	35
31	15	2	4	19	38	10	13	08	5	2	59	1	15	49	0	5	01	0	25	48	0	26	06
June 2	17	2	4	19	41	10	13	18	5	3	34	1	17	44	0	7	18	0	26	28	0	26	55
4	19	2	4	19	45	10	13	27	5	4	10	1	19	39	0	9	35	0	27	25	0	28	00
6	22	2	4	19	49	10	13	35	5	4	49	1	21	34	0	11	53	0	28	39	0	29	22
8	23	2	4	19	54	10	13	43	5	5	29	1	23	28	0	14	11	1	0	09	1	1	00
10	25	2	4	19	59	10	13	50	5	6	10	1	25	23	0	16	30	1	1	54	1	2	52
12	27	2	4	20	04	10	13	56	5	6	53	1	27	18	0	18	49	1	3	53	1	4	58
14	29	2	4	20	10	10	14	01	5	7	38	1	29	13	0	21	08	1	6	07	1	7	19
16	1	3	4	20	16	10	14	06	5	8	24	2	1	07	0	23	27	1	8	34	1	9	52
18	3	3	4	20	22	10	14	09	5	9	12	2	3	02	0	25	47	1	11	14	1	12	39
20	5	3	4	20	29	10	14	13	5	10	01	2	4	56	0	28	07	1	14	07	1	15	38
22	7	3	4	20	36	10	14	15	5	10	51	2	6	51	1	0	27	1	17	12	1	18	49
24	9	3	4	20	44	10	14	16	5	11	42	2	8	45	1	2	48	1	20	30	1	22	13
26	11	3	4	20	52	10R	14	17	5	12	35	2	10	40	1	5	08	1	23	59	1	25	48
28	13	3	4	21	00	10	14	17	5	13	02	2	12	34	1	7	29	1	27	40	1	29	35
30	16	3	4	21	08	10	14	16	5	14	24	2	14	29	1	9	50	2	1	32	2	3	32
July 2	18	3	4	21	17	10	14	15	5	15	19	2	16	23	1	12	11	2	5	34	2	7	37
4	20	3	4	21	26	10	14	12	5	16	16	2	18	17	1	14	33	2	9	42	2	11	49
6	22	3	4	21	36	10	14	09	5	17	14	2	20	12	1	16	55	2	13	57	2	16	06
8	24	3	4	21	46	10	14	05	5	18	13	2	22	06	1	19	17	2	18	15	2	20	25
10	26	3	4	21	56	10	14	01	5	19	13	2	24	01	1	21	39	2	22	35	2	24	44
12	27	3	4	22	06	10	13	55	5	20	14	2	25	55	1	24	01	2	26	53	2	29	01
14	29	3	4	22	16	10	13	49	5	21	16	2	27	49	1	26	24	3	1	09	3	3	16
16	1	3	4	22	27	10	13	42	5	22	19	2	29	44	1	28	47	3	5	21	3	7	24
18	3	3	4	22	38	10	13	35	5	23	22	3	1	38	2	1	10	3	9	27	3	11	28
20	5	3	4	22	50	10	13	27	5	24	26	3	3	33	2	3	33	3	13	27	3	15	24
22	8	3	4	23	01	10	13	18	5	25	30	3	5	28	2	5	57	3	17	20	3	19	14
24	10	3	4	23	13	10	13	08	5	26	37	3	7	22	2	8	20	3	21	06	3	22	57
26	12	3	4	23	25	10	12	58	5	27	44	3	9	17	2	10	44	3	24	45	3	26	32
28	14	3	4	23	37	10	12	47	5	28	51	3	11	11	2	13	08	3	28	18	4	0	02
30	16	3	4	23	50	10	12	36	5	29	59	3	13	06	2	15	32	4	1	44	4	3	24
Aug. 1	18	3	4	24	02	10	12	23	6	1	08	3	15	01	2	17	57	4	5	02	4	6	39

Ayanamsa on 1st Jan. : 23° 09′ 34″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	18	3	4	24	02	10R	12	23	6	1	08	3	15	01	2	17	57	4	5	02	4	6	39
3	20	3	4	24	15	10	12	11	6	2	17	3	16	56	2	20	21	4	8	14	4	9	47
5	22	3	4	24	28	10	11	58	6	3	27	3	18	50	2	22	46	4	11	19	4	12	49
7	24	3	4	24	41	10	11	45	6	4	38	3	20	45	2	25	11	4	14	17	4	15	44
9	26	3	4	24	55	10	11	31	6	5	49	3	22	40	2	27	36	4	17	09	4	18	32
11	28	3	4	25	08	10	11	16	6	7	01	3	24	36	3	0	2	4	19	54	4	21	14
13	30	3	4	25	22	10	11	02	6	8	13	3	26	31	3	2	28	4	22	31	4	23	46
15	2	4	4	25	36	10	10	47	6	9	26	3	28	26	3	4	53	4	24	58	4	26	09
17	4	4	4	25	50	10	10	32	6	10	40	4	0	21	3	7	19	4	27	18	4	28	26
19	6	4	4	26	01	10	10	16	6	11	54	4	2	17	3	9	46	4	29	31	5	0	33
21	8	4	4	26	18	10	10	01	6	13	09	4	4	12	3	12	12	5	1	32	5	2	29
23	11	4	4	26	32	10	9	45	6	14	24	4	6	08	3	14	38	5	3	23	5	4	14
25	13	4	4	26	47	10	9	29	6	15	40	4	8	04	3	17	05	5	5	02	5	5	46
27	15	4	4	27	01	10	9	14	6	16	56	4	9	59	3	19	32	5	6	27	5	7	04
29	17	4	4	27	16	10	8	58	6	18	13	4	11	55	3	21	59	5	7	37	5	8	06
31	19	4	4	27	31	10	8	42	6	19	30	4	13	51	3	24	26	5	8	30	5	8	49
Sept. 2	21	4	4	27	45	10	8	26	6	20	48	4	15	47	3	26	54	5	9	03	5	9	12
4	22	4	4	28	00	10	8	11	6	22	06	4	17	43	3	29	21	5R	9	15	5	9	11
6	24	4	4	28	15	10	7	55	6	23	25	4	19	40	4	1	49	5	9	02	5	8	46
8	26	4	4	28	30	10	7	40	6	24	44	4	21	36	4	4	17	5	8	23	5	7	55
10	28	4	4	28	45	10	7	26	6	26	04	4	23	33	4	6	44	5	7	19	5	6	38
12	30	4	4	29	00	10	7	11	6	27	24	4	25	30	4	9	12	5	5	53	5	5	02
14	3	5	4	29	15	10	6	57	6	28	45	4	27	26	4	11	41	5	4	06	5	3	05
16	5	5	4	29	30	10	6	44	7	0	06	4	29	23	4	14	10	5	2	03	5	1	00
18	7	5	4	29	45	10	6	31	7	1	27	5	1	21	4	16	38	4	29	59	4	29	00
20	9	5	5	0	00	10	6	18	7	2	49	5	3	18	4	19	06	4	28	04	4	27	12
22	11	5	5	0	15	10	6	06	7	4	11	5	5	15	4	21	35	4	26	26	4	25	48
24	13	5	5	0	30	10	5	55	7	5	34	5	7	12	4	24	04	4	25	20	4	25	01
26	15	5	5	0	45	10	5	44	7	6	57	5	9	10	4	25	34	4	24	51	4D	24	50
28	17	5	5	0	59	10	5	33	7	8	21	5	11	08	4	29	03	4	24	59	4	25	19
30	19	5	5	1	14	10	5	24	7	9	45	5	13	05	5	1	33	4	25	49	4	26	28
Oct. 2	21	5	5	1	29	10	5	15	7	11	09	5	15	03	5	4	02	4	27	15	4	28	10
4	23	5	5	1	44	10	5	06	7	12	33	5	17	02	5	6	32	4	29	13	5	0	23
6	25	5	5	1	58	10	4	59	7	13	58	5	19	00	5	9	01	5	1	39	5	2	59
8	27	5	5	2	13	10	4	52	7	15	23	5	20	58	5	11	31	5	4	25	5	5	56
10	29	5	5	2	27	10	4	46	7	16	49	5	22	57	5	14	01	5	7	28	5	9	03
12	1	6	5	2	41	10	4	40	7	18	15	5	24	55	5	16	31	5	10	39	5	12	17
14	3	6	5	2	56	10	4	36	7	19	41	5	26	54	5	19	01	5	13	57	5	15	38
16	6	6	5	3	10	10	4	32	7	21	08	5	28	53	5	21	31	5	17	20	5	19	02
18	8	6	5	3	24	10	4	29	7	22	35	6	0	52	5	24	01	5	20	45	5	22	28
20	10	6	5	3	37	10	4	27	7	24	02	6	2	52	5	26	31	5	24	11	5	25	54
22	12	6	5	3	51	10	4	26	7	25	30	6	4	51	5	29	01	5	27	37	5	29	20
24	14	6	5	4	05	10	4	25	7	26	58	6	6	50	6	1	32	6	1	02	6	2	43
26	16	6	5	4	18	10D	4	25	7	28	27	6	8	50	6	4	02	6	4	24	6	6	05
28	17	6	5	4	31	10	4	26	7	29	55	6	10	50	6	6	32	6	7	46	6	9	25
30	19	6	5	4	44	10	4	28	8	1	24	6	12	49	6	9	03	6	11	05	6	12	44
Nov. 1	21	6	5	4	57	10	4	31	8	2	53	6	14	49	6	11	33	6	14	22	6	16	00
3	23	6	5	5	09	10	4	35	8	4	23	6	16	49	6	14	04	6	17	38	6	19	15
5	25	6	5	5	21	10	4	39	8	5	52	6	18	50	6	16	34	6	20	51	6	22	28
7	27	6	5	5	34	10	4	44	8	7	22	6	20	50	6	19	05	6	24	03	6	25	39
9	29	6	5	5	46	10	4	50	8	8	52	6	22	51	6	21	36	6	27	14	6	28	48
11	2	7	5	5	57	10	4	57	8	10	53	6	24	51	6	24	06	7	0	23	7	1	57
13	4	7	5	6	09	10	5	04	8	11	54	6	26	52	6	26	37	7	3	31	7	5	04
15	6	7	5	6	20	10	5	12	8	13	25	6	28	53	6	29	08	7	6	37	7	8	10

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I S.T.																				
			♄ श नि			गु ♃ रु			म ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Nov 15	6	7	5	6	20	10	5	12	8	13	25	6	28	53	6	29	08	7	6	37	7	8	10
17	8	7	5	6	31	10	5	21	8	14	56	7	0	54	7	1	39	7	9	43	7	11	15
19	10	7	5	6	41	10	5	31	8	16	27	7	2	55	7	4	09	7	12	47	7	14	19
21	12	7	5	6	51	10	5	41	8	17	59	7	4	56	7	6	40	7	15	51	7	17	23
23	14	7	5	7	01	10	5	52	8	19	30	7	6	57	7	9	11	7	18	54	7	20	25
25	16	7	5	7	11	10	6	04	8	21	02	7	8	58	7	11	42	7	21	56	7	23	26
27	18	7	5	7	20	10	6	17	8	22	35	7	11	00	7	14	12	7	24	56	7	26	26
29	19	7	5	7	29	10	6	30	8	24	07	7	13	01	7	16	43	7	27	56	7	29	25
Dec. 1	21	7	5	7	38	10	6	44	8	25	40	7	15	03	7	19	14	8	0	54	8	2	22
3	23	7	5	7	46	10	6	58	8	27	12	7	17	04	7	21	45	8	3	50	8	5	17
5	25	7	5	7	54	10	7	13	8	28	45	7	19	06	7	24	16	8	6	43	8	8	03
7	28	7	5	8	02	10	7	29	9	0	18	7	21	08	7	26	46	8	9	32	8	10	55
9	30	7	5	8	09	10	7	45	9	1	52	7	23	10	7	29	17	8	12	17	8	13	97
11	2	8	5	8	16	10	8	02	9	3	25	7	25	12	8	1	48	8	14	55	8	16	10
13	5	8	5	8	23	10	8	20	9	4	58	7	27	14	8	4	19	8	17	23	8	18	34
15	7	8	5	8	29	10	8	38	9	6	32	7	29	16	8	6	50	8	19	40	8	20	42
17	9	8	5	8	35	10	8	56	9	8	06	8	1	18	8	9	21	8	21	38	8	22	30
19	11	8	5	8	40	10	9	15	9	9	40	8	3	20	8	11	51	8	23	16	8	23	54
21	12	8	5	8	45	10	9	35	9	11	14	8	5	22	8	14	22	8	24	25	8	24	46
23	14	8	5	8	50	10	9	55	9	12	48	8	7	25	8	16	53	8	24	57	8R	24	58
25	16	8	5	8	54	10	10	16	9	14	22	8	9	27	8	19	25	8	24	48	8	24	28
27	18	8	5	8	58	10	10	37	9	15	56	8	11	29	8	21	55	8	23	55	8	23	09
29	20	8	5	9	01	10	10	59	9	17	31	8	13	31	8	24	26	8	22	14	8	21	08
31	22	8	5	9	04	10	11	21	9	19	05	8	15	34	8	26	57	8	19	56	8	18	36
Jan. 2	24	8	5	9	06	10	11	43	9	20	39	8	17	36	8	29	27	8	17 ☉	15	8	15	54

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊			Mean ☊			♅			♆			♇			Ayanam.		
		s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	°	′	″
January	1	11	19	5	11	18	57	2 *R*	9	31	5	24	6	3 *R*	24	37	23	9	34
February	1	11	15	45	11	17	19	2	8	21	5 R	24	8	3	23	56	23	9	39
March	1	11	14	19	11	15	50	2	7	48	5	23	44	3	23	13	23	9	43
April	1	11	14	13	11	14	11	2 D	8	0	5	22	57	3	22	46	23	9	47
May	1	11	13	57	11	12	36	2	8	56	5	22	10	3 D	22	36	23	9	50
June	1	11	12	6	11	10	57	2	10	28	5	21	34	3	22	52	23	9	56
July	1	11	9	0	11	9	22	2	12	15	5 D	21	25	3	23	30	23	10	1
August	1	11	6	14	11	7	44	2	14	2	5	21	46	3	24	22	23	10	7
September	1	11	5	9	11	6	4	2	15	27	5	22	32	3	25	19	23	10	11
October	1	11	5	10	11	4	29	2	16	13	5	23	34	3	26	6	23	10	14
November	1	11	4	37	11	2	51	2R	16	12	5	24	43	3	26	36	23	10	18
December	1	11	2	15	11	1	15	2	15	27	5	25	39	3 R	26	40	23	10	23
January	1	10	28	40	10	29	37	2	14	10	5	26	15	3	26	18	23	10	30

Combustion or Heliacal Setting of Planets

Saturn	:	From Sept. 1 to Oct. 1.
Jupiter	:	From Jan. 23 to Feb. 16.
Mars	:	— —
Venus	:	From Jan. 26 to Feb. 5, Oct. 22 to Dec. 8.
Mercury	:	From Jan. 12 to Jan. 23, Mar. 15 to Apr. 9, May 7 to May 22, July 1 to July 22, Sept. 12 to Sept. 24, Oct. 16 to Nov. 23, Dec. 28 to Jan. 7 ('51).

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Jan.	8,	22	14	9	10	58	Jan.	29,	10	48	8	24	54
	May	3,	21	48	1	4	22	May	17,	18	9	0	25	20
	Sept.	4,	5	36	5	9	14	Sept.	26	17	20	4	24	47
	Dec.	23,	20	10	8	25	0	—		—		—		
Venus	Jan.	10,	18	59	9	25	34	Feb.	20,	23	36	9	9	56
Mars	Feb.	12,	11	20	5	17	52	May	3	21	33	4	28	50
Jupiter	June	26,	26	10	10	14	17	Oct.	24,	12	13	10	4	25
Saturn	—		—		—			May	15	14	26	4	19	25
Uranus	—		—		—			Mar.	9,	25	59	2	7	46
	Oct.	15,	28	25	2	16	19	—		—		—		
Neptune	Jan.	18,	24	54	5	24	12	June	26,	13	30	5	21	25
Pluto	—		—		—			Apr.	28	8	46	3	22	36
	Nov.	21,	20	23	3	26	41	—		—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	18	13	29	Māgha	Sukla	Jan.	4	13	18	Māgha	Vadi
Feb.	16	28	23	Phālguna	,,	Feb.	2	27	46	Phālguna	,,
Mar.	18	20	50	Caitra	,,	Mar.	4	16	4	Caitra	,,
Apr.	17	13	55	Vaiśākha	,,	Apr.	2	26	19	Vaiśākha	,,
May	17	6	24	Jyaiṣṭha	,,	May	2	10	49	Jyaiṣṭha	,,
June	15	21	23	Āṣāḍha (*Mala*)	,,	May	31	18	13	Āṣāḍha	,,
July	15	10	35	Āṣāḍha (*Suddha*)	,,	June	29	25	28	Āṣaḍha (*Adhika*)	,,
Aug.	13	22	18	Śravaṇa	,,	July	29	9	47	Śravaṇa	,,
Sept.	12	8	59	Bhādra	,,	Aug.	27	20	21	Bhādra	,,
Oct.	11	19	3	Āśvina	,,	Sept.	26	9	51	Āśvina	,,
Nov.	9	28	55	Kārtika	,,	Oct.	25	26	16	Kārtika	,,
Dec.	9	14	58	Agrahā	,,	Nov.	24	20	44	Agrahā	,,
						Dec.	24	15	53	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	27	21	Karkaṭa	on	July	16	12	14
Kumbha	on	Feb.	12	16	19	Siṁha	on	Aug.	16	20	31
Mina	on	Mar.	14	13	12	Kanyā	on	Sept.	16	20	29
Meṣa	on	Apr.	13	21	45	Tulā	on	Oct.	17	8	23
Vṛṣa	on	May	14	18	41	Vṛścika	on	Nov.	16	8	10
Mithuna	on	June	14	25	21	Dhanus	on	Dec.	15	22	47

1951 A.D. Longitude of Moon CONDENSED

Saka era 1872-73, Samvat 2007-08 (Apr. 7, Oct. 31), B. S. 1357-58 (Apr. 15),
Kollam era 1126-27 (Aug. 17), 25 Khara (Apr. 7, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ট) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.31	15 9	5 0 35	5 13 53	5 27 32	6 11 34	6 26 0	7 10 46	7 25 47
Jan. 7	22 9	8 10 54	8 25 57	9 10 45	9 25 11	10 9 10	10 22 40	11 5 43
14	29 9	11 18 21	0 0 40	0 12 45	0 24 41	1 6 32	1 18 23	2 0 17
21	7 10	2 12 18	2 24 26	3 6 43	3 19 11	4 1 49	4 14 37	4 27 37
28	14 10	5 10 50	5 24 16	6 7 56	6 21 52	7 6 4	7 20 29	8 5 4
Feb. 4	21 10	8 19 44	9 4 22	9 18 50	10 3 3	10 16 55	11 0 23	11 13 29
11	28 10	11 26 11	0 8 35	0 20 44	1 2 42	1 14 35	1 26 28	2 8 24
18	6 11	2 20 27	3 2 41	3 15 9	3 27 50	4 10 47	4 23 58	5 7 23
25	13 11	5 21 0	6 4 47	6 18 44	7 2 48	7 16 58	8 1 11	8 15 26
Mar. 4	20 11	8 29 39	9 13 46	9 27 45	10 11 32	10 25 4	11 8 19	11 21 16
11	27 11	0 3 56	0 16 20	0 28 30	1 10 31	1 22 25	2 4 18	2 16 14
18	4 12	2 28 17	3 10 33	3 23 5	4 5 56	4 19 6	5 2 37	5 16 27
25	11 12	6 0 32	6 14 49	6 29 13	7 13 37	7 27 59	8 12 14	8 26 21
Apr. 1	18 12	9 10 16	9 24 0	10 7 32	10 20 51	11 3 58	11 16 53	11 29 35
8	25 12	0 12 4	0 24 22	1 6 29	1 18 28	2 0 22	2 12 14	2 24 8
15	1 1	3 6 10	3 18 24	4 0 55	4 13 46	4 27 2	5 10 44	5 24 50
22	8 1	6 9 18	6 24 2	7 8 54	7 23 44	8 8 27	8 22 55	9 7 5
29	15 1	9 20 56	10 4 28	10 17 43	11 0 43	11 13 29	11 26 4	0 8 29
May 6	22 1	0 20 45	1 2 53	1 14 54	1 26 49	2 8 41	2 20 32	3 2 26
13	29 1	3 14 25	3 26 36	4 9 8	4 21 52	5 5 5	5 18 47	6 2 58
20	5 2	6 17 36	7 2 35	7 17 45	8 2 58	8 18 1	9 2 46	9 17 9
27	12 2	10 1 5	10 14 37	10 27 46	11 10 35	11 23 9	0 5 31	0 17 43
June 3	19 2	0 29 48	1 11 47	1 23 42	2 5 35	2 17 26	2 29 17	3 11 12
10	26 2	3 23 13	4 5 24	4 17 49	5 0 34	5 13 43	5 27 19	6 11 24
17	2 3	6 25 58	7 10 57	7 26 11	8 11 32	8 26 46	9 11 44	9 26 18
24	9 3	10 10 24	10 24 3	11 7 14	11 20 3	0 2 34	0 14 49	0 26 55
July 1	16 3	1 8 53	1 20 47	2 2 38	2 14 30	2 26 23	3 8 19	3 20 19
8	23 3	4 2 26	4 14 43	4 27 13	5 10 0	5 23 7	6 6 38	6 20 35
15	30 3	7 4 58	7 19 43	8 4 46	8 19 58	9 5 8	9 20 6	10 4 44
22	5 4	10 18 57	11 2 42	11 16 0	11 28 53	0 11 26	0 23 41	1 5 45
29	12 4	1 17 41	1 29 33	2 11 25	2 23 18	3 5 15	3 17 18	3 29 29
Aug. 5	19 4	4 11 49	4 24 20	5 7 3	5 20 0	6 3 14	6 16 47	7 0 38
12	26 4	7 14 49	7 29 13	8 14 0	8 28 50	9 13 41	9 28 25	10 12 54
19	2 5	10 27 3	11 10 48	11 24 9	0 7 7	0 19 43	1 2 2	1 14 7
26	9 5	1 26 4	2 7 56	2 19 43	3 1 44	3 13 47	3 25 59	4 8 23
Sept 2	16 5	4 20 59	5 3 49	5 16 54	6 0 11	6 13 42	6 27 26	7 11 23
9	23 5	7 25 29	8 9 44	8 24 6	9 8 30	9 22 54	10 7 12	10 21 20
16	30 5	11 5 13	11 18 49	0 2 6	0 15 2	0 27 39	1 9 59	1 22 6
23	6 6	2 4 3	2 15 56	2 27 48	3 9 45	3 21 51	4 4 10	4 16 45
30	13 6	4 29 38	5 12 49	5 26 18	6 10 3	6 24 0	7 8 7	7 22 18
Oct. 7	20 6	8 6 31	8 20 43	9 4 52	9 18 56	10 2 54	10 16 44	11 0 25
14	27 6	11 13 55	11 27 13	0 10 16	0 23 3	1 5 36	1 17 53	1 29 59
21	3 7	2 11 55	2 23 46	3 5 37	3 17 33	3 29 33	4 11 59	4 24 39
28	10 7	5 7 41	5 21 8	6 4 53	6 19 9	7 3 35	7 18 10	8 2 46
Nov. 4	17 7	8 17 18	9 1 39	9 15 48	9 29 43	10 13 25	10 26 54	11 10 11
11	24 7	11 23 17	0 6 13	0 18 57	1 1 30	1 13 52	1 26 3	2 8 6
18	2 8	2 19 59	3 1 48	3 13 36	3 25 29	4 7 31	4 19 49	5 2 26
25	9 8	5 15 29	5 28 59	6 12 58	6 27 24	7 12 11	7 27 11	8 12 13
Dec. 2	16 8	8 27 9	9 11 50	9 26 12	10 10 12	10 23 52	11 7 12	11 20 15
9	23 8	0 3 4	0 15 42	0 28 8	1 10 26	1 22 36	2 4 38	2 16 34
16	30 8	2 28 25	3 10 13	3 22 1	4 3 53	4 15 54	4 28 8	5 10 41
23	7 9	5 23 37	6 7 1	6 20 55	7 5 19	7 20 9	8 5 17	8 20 34
30	14 9	9 5 48	9 20 50	10 5 30	10 19 46	11 3 36	11 17 0	0 0 2
Jan. 6	21 9	0 12 45	0 25 13	1 7 28	1 19 34	2 1 34	2 13 28	2 25 19

Longitudes of Planets

1951 A.D.

Ayanamsa on 1st Jan. : 23° 10′ 30″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ⊙ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	23	8	5	9	05	10	11	31	9	19	52	8	16	35	8	28	12	8*R*	18	36	8	17⊙	15
3	25	8	5	9	07	10	11	54	9	21	26	8	18	37	9	0	43	8	15	54	8	14	35
5	27	8	5	9	09	10	12	17	9	23	01	8	20	39	9	3	13	8	13	21	8	12	14
7	30	8	5	9	10	10	12	40	9	24	35	8	22	42	9	5	44	8	11	15	8	10	26
9	2	9	5	9	11	10	13	04	9	26	10	8	24	44	9	8	14	8	9	46	8	9	16
11	4	9	5R	9	11	10	13	28	9	27	44	8	26	46	9	10	45	8	8	57	8	8	46
13	6	9	5	9	11	10	13	52	9	29	19	8	28	49	9	13	15	8D	8	45	8	8	52
15	8	9	5	9	11	10	14	17	10	0	54	9	0	51	9	15	46	8	9	07	8	9	29
17	10	9	5	9	10	10	14	42	10	2	28	9	2	53	9	18	16	8	9	57	8	10	32
19	12	9	5	9	09	10	15	08	10	4	03	9	4	55	9	20	47	8	11	11	8	11	56
21	13	9	5	9	07	10	15	33	10	5	37	9	6	57	9	23	17	8	12	44	8	13	37
23	15	9	5	9	05	10	15	59	10	7	12	9	8	59	9	25	47	8	14	33	8	15	32
25	17	9	5	9	02	10	16	25	10	8	46	9	11	01	9	28	17	8	16	34	8	17	39
27	19	9	5	8	59	10	16	52	10	10	20	9	13	03	10	0	47	8	18	46	8	19	55
29	21	9	5	8	56	10	17	19	10	11	55	9	15	05	10	3	17	8	21	06	8	22	19
31	23	9	5	8	52	10	17	45	10	13	29	9	17	07	10	5	47	8	23	34	8	24	50
Feb. 2	26	9	5	8	48	10	18	13	10	15	03	9	19	09	10	8	17	8	26	08	8	27	27
4	28	9	5	8	43	10	18	40	10	16	38	9	21	11	10	10	46	8	28	47	9	0	08
6	30	9	5	8	38	10	19	07	10	18	12	9	23	12	10	13	16	9	1	31	9	2	55
8	2	10	5	8	33	10	19	35	10	19	46	9	25	14	10	15	46	9	4	20	9	5	46
10	4	10	5	8	27	10	20	03	10	21	20	9	27	16	10	18	15	9	7	12	9	8	40
12	6	10	5	8	21	10	20	31	10	22	54	9	29	17	10	20	44	9	10	09	9	11	38
14	8	10	5	8	15	10	20	59	10	24	27	10	1	18	10	23	14	9	13	09	9	14	40
16	10	10	5	8	08	10	21	28	10	26	01	10	3	20	10	25	43	9	16	13	9	17	46
18	12	10	5	8	01	10	21	56	10	27	35	10	5	21	10	28	12	9	19	20	9	20	55
20	14	10	5	7	54	10	22	25	10	29	08	10	7	22	11	0	40	9	22	31	9	24	08
22	16	10	5	7	46	10	22	53	11	0	42	10	9	23	11	3	09	9	25	46	9	27	25
24	18	10	5	7	38	10	23	22	11	2	15	10	11	23	11	5	38	9	29	04	10	0	45
26	20	10	5	7	30	10	23	51	11	3	48	10	13	24	11	8	06	10	2	27	10	4	10
28	22	10	5	7	22	10	24	20	11	5	21	10	15	25	11	10	34	10	5	53	10	7	38
Mar. 2	24	10	5	7	13	10	24	49	11	6	54	10	17	25	11	13	02	10	9	24	10	11	11
4	26	10	5	7	05	10	25	18	11	8	26	10	19	25	11	15	30	10	12	58	10	14	47
6	29	10	5	6	56	10	25	47	11	9	59	10	21	26	11	17	58	10	16	37	10	18	28
8	1	11	5	6	47	10	26	16	11	11	32	10	23	26	11	20	25	10	20	21	10	22	14
10	3	11	5	6	38	10	26	45	11	13	04	10	25	26	11	22	53	10	24	08	10	26⊙	03
12	5	11	5	6	29	10	27	14	11	14	36	10	27	26	11	25	20	10	27	59	10	29	56
14	6	11	5	6	19	10	27	43	11	16	08	10	29	25	11	27	47	11	1	54	11	3	32
16	8	11	5	6	10	10	28	12	11	17	40	11	1	25	0	0	13	11	5	51	11	7	50
18	10	11	5	6	00	10	28	41	11	19	11	11	3	25	0	2	40	11	9	50	11	11	50
20	12	11	5	5°	51	10	29	10	11	20	43	11	5	24	0	5	06	11	13	49	11	15	48
22	14	11	5	5	41	10	29	39	11	22	14	11	7	23	0	7	32	11	17	46	11	19	43
24	16	11	5	5	22	11	0	08	11	23	45	11	9	22	0	9	58	11	21	38	11	23	31
26	18	11	5	5	23	11	0	37	11	25	16	11	11	21	0	12	24	11	25	22	11	27	10
28	21	11	5	5	13	11	1	05	11	26	47	11	13	20	0	14	49	11	28	55	0	0	37
30	23	11	5	5	04	11	1	34	11	28	17	11	15	18	0	17	14	0	2	14	0	3	47
Apr. 1	25	11	5	4	55	1	2	03	11	29	48	11	17	17	0	19	39	0	5	15	0	6	38
3	27	11	5	4	46	11	2	31	0	1	18	11	19	15	0	22	03	0	7	56	0	9	08
5	29	11	5	4	37	11	3	00	0	2	48	11	21	13	0	24	27	0	10	14	0	11	14
7	1	12	5	4	28	11	3	28	0	4	18	11	23	12	0	26	51	0	12	08	0	12	55
9	3	12	5	4	19	11	3	56	0	5	47	11	25	10	0	29	15	0	13	36	0	14	10
11	5	12	5	4	11	11	4	24	0	7	17	11	27	07	1	1	39	0	14	38	0	14	58
13	7	12	5	4	03	11	4	52	0	8	46	11	29	05	1	4	02	0	15	13	0	15	21
15	8	12	5	3	55	11	5	19	0	10	15	0	1	03	1	6	24	0R	15	22	0	15	18
17	10	12	5	3	47	11	5	47	0	11	44	0	3	00	1	8	47	0	15	07	0	14	51

1951 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 10′ 30″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	10	12	5R 3 47	11 5 47	0 11 44	0 3 00	1 8 47	0R 15 07	0 14 51
19	12	12	5 3 40	11 6 14	0 13 12	0 4 57	1 11 09	0 14 30	0 14 04
21	14	12	5 3 32	11 6 41	0 14 41	0 6 55	1 13 31	0 13 34	0 13 00
23	17	12	5 3 26	11 7 03	0 16 09	0 8 52	1 15 52	0 12 24	0 11 45
25	19	12	5 3 19	11 7 35	0 17 37	0 10 48	1 18 13	0 11 05	0 10 24
27	21	12	5 3 13	11 8 01	0 19 05	0 12 45	1 20 33	0 9 44	0 9 04
29	24	12	5 3 07	11 8 28	0 20 32	0 14 42	1 22 53	0 8 26	0 7 50
May 1	26	12	5 3 01	11 8 54	0 22 00	0 16 38	1 25 13	0 7 16	0 6 46
3	28	12	5 2 56	11 9 19	0 23 27	0 18 35	1 27 32	0 6 20	0 5 57
5	29	12	5 2 51	11 9 45	0 24 51	0 20 31	1 29 51	0 5 39	0 5 25
7	1	1	5 2 46	11 10 10	0 26 21	0 22 28	2 2 10	0 5 15	0 5 11
9	3	1	5 2 40	11 10 35	0 27 47	0 24 24	2 4 27	0D 5 11	0 5 15
11	5	1	5 2 38	11 11 00	0 29 14	0 26 20	2 6 45	0 5 25	0 5 39
13	7	1	5 2 35	11 11 24	1 0 40	0 28 16	2 9 02	0 5 57	0 6 20
15	9	1	5 2 32	11 11 48	1 2 06	1 0 11	2 11 18	0 6 47	0 7 19
17	11	1	5 2 29	11 12 11	1 3 31	1 2 07	2 13 34	0 7 54	0 8 33
19	13	1	5 2 27	11 12 35	1 4 57	1 4 03	2 15 49	0 9 16	0 10 03
21	15	1	5 2 25	11 12 58	1 6 22	1 5 58	2 18 03	0 10 53	0 11 46
23	18	1	5 2 24	11 13 20	1 7 47	1 7 53	2 20 17	0 12 43	0 13 43
25	20	1	5 2 22	11 13 42	1 9 12	1 9 49	2 22 30	0 14 47	0 15 53
27	22	1	5 2 22	11 14 04	1 10 37	1 11 44	2 24 42	0 17 02	0 18 11
29	24	1	5D 2 22	11 14 26	1 12 02	1 13 39	2 26 54	0 19 29	0 20 47
31	26	1	5 2 22	11 14 47	1 13 26	1 15 34	2 29 05	0 22 07	0 23 31
June 2	28	1	5 2 22	11 15 07	1 14 50	1 17 29	3 1 15	0 24 57	0 26 25
4	30	1	5 2 23	11 15 27	1 16 14	1 19 24	3 3 24	0 27 56	0 29 30
6	2	2	5 2 25	11 15 47	1 17 38	1 21 19	3 5 32	1 1 07	1 2 46
8	4	2	5 2 27	11 16 06	1 19 01	1 23 14	3 7 39	1 4 27	1 6 11
10	5	2	5 2 29	11 16 25	1 20 25	1 25 09	3 9 45	1 7 58	1 9 47
12	7	2	5 2 31	11 16 43	1 21 48	1 27 03	3 11 51	1 11 39	1 13 33
14	9	2	5 2 34	11 17 01	1 23 11	1 28 58	3 13 55	1 15 29	1 17 28
16	11	2	5 2 38	11 17 18	1 24 34	2 0 53	3 15 57	1 19 29	1 21 32
18	14	2	5 2 42	11 17 34	1 25 56	2 2 47	3 17 59	1 23 37	1 25 43
20	16	2	5 2 46	11 17 50	1 27 18	2 4 42	3 19 59	1 27 51	2 0 00
22	18	2	5 2 51	11 18 06	1 28 41	2 6 36	3 21 57	2 2 10	2 4 21
24	21	2	5 2 56	11 18 21	2 0 03	2 8 31	3 23 54	2 6 32	2 8 44
26	23	2	5 3 01	11 18 35	2 1 25	2 10 25	3 25 49	2 10 55	2 13 06
28	25	2	5 3 07	11 18 49	2 2 46	2 12 19	3 27 43	2 15 16	2 17 26
30	27	2	5 3 13	11 19 02	2 4 08	2 14 17	3 29 34	2 19 34	2 21 41
July 2	28	2	5 3 19	11 19 15	2 5 29	2 16 08	4 1 24	2 23 47	2 25 51
4	30	2	5 3 26	11 19 27	2 6 50	2 18 03	4 3 11	2 27 53	2 29 54
6	2	3	5 3 33	11 19 38	2 8 11	2 19 57	4 4 56	3 1 53	3 3 50
8	4	3	5 3 41	11 19 48	2 9 32	2 21 52	4 6 39	3 5 45	3 7 38
10	6	3	5 3 48	11 19 58	2 10 53	2 23 46	4 8 19	3 9 30	3 11 19
12	8	3	5 3 56	11 20 07	2 12 13	2 25 40	4 9 56	3 13 06	3 14 52
14	10	3	5 4 05	11 20 16	2 13 33	2 27 35	4 11 30	3 16 35	3 18 17
16	12	3	5 4 14	11 20 24	2 14 53	2 29 29	4 13 00	3 19 56	3 21 34
18	15	3	5 4 23	11 20 31	2 16 13	3 1 24	4 14 27	3 23 10	3 24 43
20	17	3	5 4 32	11 20 37	2 17 33	3 3 18	4 15 50	3 26 15	3 27 45
22	19	3	5 4 42	11 20 42	2 18 53	3 5 13	4 17 09	3 29 13	4 0 39
24	21	3	5 4 52	11 20 47	2 20 12	3 7 07	4 18 24	4 2 02	4 3 24
26	23	3	5 5 02	11 20 51	2 21 31	3 9 02	4 19 33	4 4 43	4 6 01
28	25	3	5 5 12	11 20 54	2 22 50	3 10 56	4 20 37	4 7 16	4 8 29
30	27	3	5 5 23	11 20 57	2 24 09	3 12 51	4 21 36	4 9 40	4 10 48
Aug. 1	29	3	5 5 34	11 20 59	2 25 28	3 14 46	4 22 28	4 11 54	4 12 57

EPHEMERIS Longitudes of Planets 1951 A D.

Ayanamsa on 1st Jan. : 23° 10′ 30″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	29	3	5	5	34	11	20	59	2	25	28	3	14	46	4	22	28	4	11	54	4	12	57
3	1	4	5	5	45	11	21	00	2	26	47	3	16	41	4	23	14	4	13	57	4	14	55
5	2	4	5	5	57	11	R21	00	2	28	05	3	18	36	4	23	53	4	15	50	4	16	41
7	4	4	5	6	09	11	20	59	2	29	24	3	20	31	4	24	24	4	17	30	4	18	15
9	6	4	5	6	20	11	20	58	3	0	42	3	22	26	4	24	48	4	18	57	4	19	34
11	9	4	5	6	33	11	20	55	3	2	00	3	24	21	4	25	03	4	20	08	4	20	38
13	11	4	5	6	45	11	20	52	3	3	18	3	26	16	4	R25	09	4	21	03	4	21	24
15	13	4	5	6	57	11	20	48	3	4	36	3	28	11	4	25	06	4	21	40	4	21	51
17	15	4	5	7	10	11	20	44	3	5	53	4	0	06	4	24	53	4	21	57	4	R21	58
19	18	4	5	7	23	11	20	38	3	7	11	4	2	02	4	24	31	4	21	52	4	21	42
21	20	4	5	7	36	11	20	32	3	8	28	4	3	57	4	23	59	4	21	25	4	21	03
23	22	4	5	7	50	11	20	25	3	9	45	4	5	53	4	23	18	4	20	35	4	20	01
25	24	4	5	8	03	11	20	18	3	11	02	4	7	49	4	22	29	4	19	23	4	18	39
27	25	4	5	8	16	11	20	09	3	12	19	4	9	44	4	21	32	4	17	52	4	17	00
29	27	4	5	8	30	11	20	00	3	13	36	4	11	40	4	20	28	4	16	07	4	15	11
31	29	4	5	8	44	11	19	50	3	14	52	4	13	36	4	19	20	4	14⊙	15	4	13	19
Sept. 2	1	5	5	8	58	11	19	40	3	16	09	4	15	32	4	18⊙	07	4	12	25	4	11	34
4	3	5	5	9	12	11	19	29	3	17	25	4	17	29	4	16	53	4	10	48	4	10	06
6	5	5	5	9	26	11	19	17	3	18	41	4	19	25	4	15	40	4	9	31	4	9	03
8	7	5	5	9	41	11	19	05	3	19	57	4	21	21	4	14	28	4	8	43	4	8	31
10	9	5	5	9	55	11	18	52	3	21	13	4	23	18	4	13	20	4	D8	28	4	8	34
12	12	5	5	10	09	11	18	39	3	22	29	4	25	15	4	12	17	4	8	49	4	9	13
14	14	5	5	10	24	11	18	25	3	23	44	4	27	11	4	11	21	4	9	46	4	10	27
16	16	5	5	10	39	11	18	11	3	25	00	4	29	08	4	10	34	4	11	17	4	12	15
18	18	5	5	10	53	11	17	56	3	26	15	5	1	05	4	9	55	4	13	20	4	14	31
20	20	5	5	11	08	11	17	41	3	27	30	5	3	02	4	9	26	4	15	49	4	17	12
22	22	5	5	11	23	11	17	26	3	23	45	5	5	00	4	9	06	4	18	40	4	20	12
24	24	5	5	11	37	11	17	11	4	0	00	5	6	57	4	8	56	4	21	48	4	23	26
26	26	5	5	11	52	11	16	55	4	1	15	5	8	55	4	D8	56	4	25	08	4	26	51
28	27	5	5	12⊙	07	11	16	39	4	2	29	5	10	52	4	9	05	4	28	36	5	0	22
30	29	5	5	12	22	11	16	23	4	3	43	5	12	50	4	9	23	5	2	09	5	3	57
Oct. 2	1	6	5	12	37	11	16⊙	07	4	4	58	5	14	48	4	9	50	5	5	45	5	7	33
4	4	6	5	12	52	11	15	51	4	6	12	5	16	46	4	10	25	5	9	21	5	11	09
6	6	6	5	13	06	11	15	35	4	7	26	5	18	45	4	11	07	5	12	56	5	14	43
8	8	6	5	13	21	11	15	19	4	8	40	5	20	43	4	11	57	5	16	30	5	18	16
10	10	6	5	13	36	11	15	03	4	9	53	5	22	42	4	12	53	5	20	01	5	21	46
12	12	6	5	13	51	11	14	47	4	11	07	5	24	40	4	13	55	5	23	30	5	25⊙	14
14	14	6	5	14	05	11	14	31	4	12	20	5	26	39	4	15	03	5	26	56	5	28	38
16	16	6	5	14	20	11	14	16	4	13	33	5	28	38	4	16	17	6	0	20	6	2	00
18	18	6	5	14	34	11	14	01	4	14	46	6	0	37	4	17	35	6	3	40	6	5	20
20	20	6	5	14	49	11	13	47	4	15	59	6	2	36	4	18	58	6	6	58	6	8	36
22	22	6	5	15	03	11	13	32	4	17	11	6	4	35	4	20	26	6	10	14	6	11	51
24	24	6	5	15	17	11	13	19	4	18	24	6	6	35	4	21	58	6	13	27	6	15	03
26	26	6	5	15	31	11	13	06	4	19	36	6	8	34	4	23	33	6	16	38	6	18	12
28	28	6	5	15	45	11	12	53	4	20	48	6	10	34	4	25	12	6	19	47	6	21	20
30	30	6	5	15	59	11	12	41	4	22	00	6	12	34	4	26	54	6	22	53	6	24	26
Nov. 1	2	7	5	16	13	11	12	29	4	23	12	6	14	34	4	28	38	6	25	58	6	27	30
3	4	7	5	16	26	11	12	18	4	24	23	6	16	34	5	0	26	6	29	01	7	0	32
5	7	7	5	16	40	11	12	08	4	25	34	6	18	34	5	2	16	7	2	02	7	3	32
7	9	7	5	16	53	11	11	58	4	26	45	6	20	35	5	4	09	7	5	02	7	6	31
9	11	7	5	17	06	11	11	49	4	27	56	6	22	35	5	6	03	7	7	59	7	9	28
11	13	7	5	17	19	11	11	41	4	29	07	6	24	36	5	8	00	7	10	55	7	12	22
13	15	7	5	17	32	11	11	34	5	0	17	6	26	37	5	9	59	7	13	49	7	15	15
15	17	7	5	17	44	11	11	27	5	1	27	6	28	37	5	12	00	7	16	40	7	18	04

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	17	7	5 17 44	11R11 27	5 1 27	6 28 37	5 12 00	7 16 40	7 18 04
17	19	7	5 17 56	11 11 22	5 2 37	7 0 33	5 14 02	7 .9 28	7 20 51
19	20	7	5 18 08	11 11 17	5 3 47	7 2 39	5 16 06	7 22 13	7 23 33
21	22	7	5 18 20	11 11 12	5 4 57	7 4 40	5 18 12	7 24 53	7 26 11
23	24	7	5 18 32	11 11 09	5 6 06	7 6 41	5 20 19	7 27 28	7 28 42
25	26	7	5 18 43	11 11 06	5 7 15	7 8 43	5 22 27	7 29 55	8 1 05
27	28	7	5 18 54	11 11 05	5 8 23	7 10 44	5 24 36	8 2 13	8 3 17
29	1	8	5 19 05	11 11 04	5 9 32	7 12 46	5 26 47	8 4 18	8 5 15
Dec. 1	3	8	5 19 16	11D11 04	5 10 40	7 14 47	5 28 59	8 6 08	8 6 55
3	5	8	5 19 26	11 11 04	5 11 47	7 16 49	6 1 12	8 7 31	8 8 11
5	7	8	5 19 36	11 11 06	5 12 55	7 18 51	6 3 26	8 8 39	8 8 53
7	9	8	5 19 46	11 11 08	5 14 02	7 20 53	6 5 40	8 9 07	8R9 07
9	11	8	5 19 55	11 11 12	5 15 09	7 22 55	6 7 56	8 8 57	8 8 35
11	13	8	5 20 04	11 11 16	5 16 15	7 24 56	6 10 12	8 8 01	8 7 16
13	15	8	5 20 13	11 11 21	5 17 21	7 26 58	6 12 29	8 6 21	8 5 16
15	17	8	5 20 21	11 11 26	5 18 27	7 29 00	6 14 47	8 4 03	8 2 43
17	19	8	5 20 29	11 11 33	5 19 32	8 1 02	6 17 06	8 1 21	7 29 58
19	21	8	5 20 37	11 11 40	5 20 37	8 3 05	6 19 25	7 28 38	7 27 22
21	22	8	5 20 44	11 11 48	5 21 42	8 5 07	6 21 44	7 26 13	7 25 13
23	24	8	5 20 51	11 11 57	5 22 46	8 7 09	6 24 05	7 24 23	7 23 44
25	26	8	5 20 57	11 12 06	5 23 49	8 9 11	6 26 26	7 23 16	7 22 58
27	28	8	5 21 04	11 12 17	5 24 53	8 11 14	6 28 47	7 22 50	7D22 52
29	1	9	5 21 09	11 12 28	5 25 55	8 13 16	7 1 08	7 23 04	7 23 23
31	3	9	5 21 15	11 12 39	5 26 58	8 15 18	7 3 31	7 23 49	7 24 22
Jan. 2	6	9	5 21 20	11 12 52	5 27 59	8 17 21	7 5 53	7 25 02	7 25 47

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	10 28 40	10 29 37	2 R14 10	5 26 15	3 R26 18	23 10 30
February	1	10 26 16	10 27 58	2 12 57	5 R26 20	3 25 36	23 10 35
March	1	10 25 48	10 26 29	2 12 18	5 25 57	3 24 56	23 10 39
April	1	10 25 49	10 24 50	2D12 22	5 25 12	3 24 25	23 10 42
May	1	10 24 41	10 23 15	2 13 12	5 24 24	3 D24 14	23 10 46
June	1	10 21 49	10 21 37	2 14 40	5 23 47	3 24 29	23 10 51
July	1	10 18 46	10 20 1	2 16 25	5 D23 35	3 25 7	23 10 57
August	1	10 16 59	10 18 23	2 18 15	5 23 52	3 25 57	23 11 3
September	1	10 16 45	10 16 44	2 19 45	5 24 37	3 26 56	23 11 5
October	1	10 16 39	10 15 8	2 20 38	5 25 38	3 27 45	23 11 17
November	1	10 15 3	10 13 30	2R20 45	5 26 47	3 28 15	23 11 11
December	1	10 11 49	10 11 55	2 20 5	5 27 45	3 R28 21	23 11 14
January	1	10 8 40	10 10 16	2 18 52	5 28 23	3 28 1	23 11 29

Combustion or Heliacal Setting of Planets

Saturn :	From Sept. 15 to Oct. 14.
Jupiter :	From Mar. 1 to Mar. 23.
Mars :	From Mar. 26 to July 14.
Venus :	— —
Mercury :	Upto Jan. 7 then from Feb. 25 to Mar. 24, Apr. 18 to May 3, June 16 to July 6, Aug. 25 to Sept. 7, Sept. 29 to Nov. 2, Dec. 11 to Dec. 23.

Retrogression of Planets

PLANET	RETROGRADE				DIRECT			
	Date			Long.	Date			Long.
		h	m	s °		h	m	s ° ′
Mercury	—	—		—	Jan. 12,	21	3	8 8 44
	Apr. 14,	23	21	0 15 23	May 8,	17	20	0 5 10
	Aug. 17,	19	23	4 21 58	Sept 9,	25	42	4 8 27
	Dec. 7,	17	16	8 9 9	Dec. 27,	12	16	7 22 50
Venus	Aug. 13,	13	6	4 25 9	Sept. 25,	6	28	4 8 55
Mars	—	—		—	—	—		—
Jupiter	Aug. 4	11	30	11 21 0	Nov. 30,	10	18	11 11 4
Saturn	Jan. 11,	27	46	5 9 11	May 28,	28	36	5 2 22
Uranus	—	—		—	Mar. 14,	15	50	2 12 13
	Oct. 20,	22	6	2 10 49	—	—		—
Neptune	Jan. 20,	19	54	5 26 22	June 28,	24	6	5 23 34
Pluto	—	—		—	Apr. 29,	24	0	3 24 14
	Nov. 23,	17	0	3 28 22	—	—		—

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	7	25	40	Pauṣa	Sukla	Jan.	23	10	17	Māgha	Vadi
Feb.	6	13	24	Māgha	"	Feb.	21	26	42	Phālguna	"
Mar.	7	26	20	Phālguna	"	Mar.	23	16	20	Caitra	"
Apr.	6	16	22	Caitra	"	Apr.	21	27	0	Vaiśākha	"
May	6	7	5	Vaiśākha	"	May	21	11	15	Jyaiṣṭha	"
June	4	22	10	Jyaiṣṭha	"	June	19	18	6	Āṣāḍha	"
July	4	13	18	Āṣāḍha	"	July	18	24	47	Śrāvaṇa	"
Aug.	2	28	9	Śrāvaṇa	"	Aug.	17	8	29	Bhādra	"
Sept.	1	18	19	Bhādra	"	Sept.	15	18	8	Āśvina	"
Oct.	1	7	27	Āśvina	"	Oct.	15	6	21	Kārtika	"
Oct.	30	19	24	Kārtika	"	Nov.	13	21	22	Agrahā	"
Nov.	29	6	30	Agrahā	"	Dec.	13	15	0	Pauṣa	"
Dec.	28	17	13	Pauṣa	"			—			

Sun's entry into Nirayana Signs

			d h m				d h m
Makara	on	Jan.	14 9 30	Karkaṭa	on	July	16 18 22
Kumbha	on	Feb.	12 22 29	Siṁha	on	Aug.	16 26 49
Mina	on	Mar.	14 19 21	Kanyā	on	Sept.	16 26 44
Meṣa	on	Apr.	13 27 52	Tulā	on	Oct.	17 14 38
Vṛṣa	on	May	14 24 46	Vṛścika	on	Nov.	16 14 21
Mithuna	on	June	15 7 26	Dhanus	on	Dec.	15 28 56

SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time		
	JAN.		
	h	*m*	*s*
1	18	41	48
2	18	45	45
3	18	49	42
4	18	53	38
5	18	57	35
6	19	1	31
7	19	5	28
8	19	9	24
9	19	13	21
10	19	17	18
11	19	21	14
12	19	25	11
13	19	29	7
14	19	33	4
15	19	37	0
16	19	40	57
17	19	44	53
18	19	48	50
19	19	52	47
20	19	56	43
21	20	0	40
22	20	4	36
23	20	8	33
24	20	12	29
25	20	16	26
26	20	20	22
27	20	24	19
28	20	28	16
29	20	32	12
30	20	36	9
31	20	40	5
	FEB.		
1	20	44	2
2	20	47	58
3	20	51	55
4	20	55	51
5	20	59	48
6	21	3	45
7	21	7	41
8	21	11	38
9	21	15	34
10	21	19	31
11	21	23	27
12	21	27	24
13	21	31	20
14	21	35	17
15	21	39	14

Date	Sid. Time		
	FEB.		
	h	*m*	*s*
16	21	43	10
17	21	47	7
18	21	51	3
19	21	55	0
20	21	58	56
21	22	2	53
22	22	6	49
23	22	10	46
24	22	14	43
25	22	18	39
26	22	22	36
27	22	26	32
28	22	30	29
29	22	34	25
	MAR.		
1	22	34	25
2	22	38	22
3	22	42	18
4	22	46	15
5	22	50	12
6	22	54	8
7	22	58	5
8	23	2	1
9	23	5	58
10	23	9	54
11	23	13	51
12	23	17	47
13	23	21	44
14	23	25	41
15	23	29	37
16	23	33	34
17	23	37	30
18	23	41	27
19	23	45	23
20	23	49	20
21	23	53	16
22	23	57	13
23	0	1	10
24	0	5	6
25	0	9	3
26	0	12	59
27	0	16	56
28	0	20	52
29	0	24	49
30	0	28	45
31	0	32	42

Date	Sid. Time		
	APRIL		
	h	*m*	*s*
1	0	36	39
2	0	40	35
3	0	44	32
4	0	48	28
5	0	52	25
6	0	56	21
7	1	0	18
8	1	4	14
9	1	8	11
10	1	12	8
11	1	16	4
12	1	20	1
13	1	23	57
14	1	27	54
15	1	31	50
16	1	35	47
17	1	39	43
18	1	43	40
19	1	47	37
20	1	51	33
21	1	55	30
22	1	59	26
23	2	3	23
24	2	7	19
25	2	11	16
26	2	15	12
27	2	19	9
28	2	23	6
29	2	27	2
30	2	30	59
	MAY		
1	2	34	55
2	2	38	52
3	2	42	48
4	2	46	45
5	2	50	41
6	2	54	38
7	2	58	35
8	3	2	31
9	3	6	28
10	3	10	24
11	3	14	21
12	3	18	17
13	3	22	14
14	3	26	10
15	3	30	7
16	3	34	4

Date	Sid. Time		
	MAY		
	h	*m*	*s*
17	3	38	0
18	3	41	56
19	3	45	53
20	3	49	50
21	3	53	46
22	3	57	43
23	4	1	39
24	4	5	36
25	4	9	33
26	4	13	29
27	4	17	26
28	4	21	22
29	4	25	19
30	4	29	15
31	4	33	12
	JUNE		
1	4	37	8
2	4	41	5
3	4	45	2
4	4	48	58
5	4	52	55
6	4	56	51
7	5	0	48
8	5	4	44
9	5	8	41
10	5	12	37
11	5	16	34
12	5	20	31
13	5	24	27
14	5	28	24
15	5	32	20
16	5	36	17
17	5	40	13
18	5	44	10
19	5	48	6
20	5	52	3
21	5	56	0
22	5	59	56
23	6	3	53
24	6	7	49
25	6	11	46
26	6	15	42
27	6	19	39
28	6	23	35
29	6	27	32
30	6	31	29

Date	Sid. Time		
	JULY		
	h	*m*	*s*
1	6	35	25
2	6	39	22
3	6	43	18
4	6	47	15
5	6	51	11
6	6	55	8
7	6	59	4
8	7	3	1
9	7	6	58
10	7	10	54
11	7	14	51
12	7	18	47
13	7	22	44
14	7	26	40
15	7	30	37
16	7	34	33
17	7	38	30
18	7	42	27
19	7	46	23
20	7	50	20
21	7	54	16
22	7	58	13
23	8	2	9
24	8	6	6
25	8	10	2
26	8	13	59
27	8	17	56
28	8	21	52
29	8	25	49
30	8	29	45
31	8	33	42
	AUG.		
1	8	37	38
2	8	41	35
3	8	45	31
4	8	49	28
5	8	53	25
6	8	57	21
7	9	1	18
8	9	5	14
9	9	9	11
10	9	13	7
11	9	17	4
12	9	21	0
13	9	24	57
14	9	28	54
15	9	32	50

Sidereal Time : Table I—*contd.*

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	AUGUST		SEPT.		OCT.		NOV.		DEC.
	h m s		*h m s*		*h m s*		*h m s*		*h m s*
16	9 36 47	12	11 23 14	9	13 9 41	5	14 56 8	2	16 42 35
17	9 40 43	13	11 27 10	10	13 13 37	6	15 0 4	3	16 46 31
18	9 44 40	14	11 31 7	11	13 17 34	7	15 4 1	4	16 50 28
19	9 48 36	15	11 35 3	12	13 21 30	8	15 7 57	5	16 54 24
20	9 52 33	16	11 39 0	13	13 25 27	9	15 11 54	6	16 58 21
21	9 56 29	17	11 42 56	14	13 29 23	10	15 15 50	7	17 2 17
22	10 0 26	18	11 46 53	15	13 33 20	11	15 19 47	8	17 6 14
23	10 4 23	19	11 50 50	16	13 37 16	12	15 23 43	9	17 10 10
24	10 8 19	20	11 54 46	17	13 41 13	13	15 27 40	10	17 14 7
25	10 12 16	21	11 58 43	18	13 45 10	14	15 31 37	11	17 18 4
26	10 16 12	22	12 2 39	19	13 49 6	15	15 35 33	12	17 22 0
27	10 20 9	23	12 6 36	20	13 53 3	16	15 39 30	13	17 25 57
28	10 24 5	24	12 10 32	21	13 56 59	17	15 43 26	14	17 29 53
29	10 28 2	25	12 14 29	22	14 0 56	18	15 47 23	15	17 33 50
30	10 31 58	26	12 18 25	23	14 4 52	19	15 51 19	16	17 37 46
31	10 35 55	27	12 22 22	24	14 8 49	20	15 55 16	17	17 41 43
		28	12 26 19	25	14 12 45	21	15 59 12	18	17 45 39
	SEPT.	29	12 30 15	26	14 16 42	22	16 3 9	19	17 49 36
		30	12 34 12	27	14 20 39	23	16 7 6	20	17 53 33
1	10 39 52			28	14 24 35	24	16 11 2	21	17 57 29
2	10 43 48		OCT.	29	14 28 32	25	16 14 59	22	18 1 26
3	10 47 45			30	14 32 28	26	16 18 55	23	18 5 23
4	10 51 41	1	12 38 8	31	14 36 25	27	16 22 52	24	18 9 19
5	10 55 38	2	12 42 5			28	16 26 48	25	18 13 15
6	10 59 34	3	12 46 1		NOV.	29	16 30 45	26	18 17 12
7	11 3 31	4	12 49 58			30	16 34 41	27	18 21 8
8	11 7 27	5	12 53 54	1	14 40 21			28	18 25 5
9	11 11 24	6	12 57 51	2	14 44 18		DEC.	29	18 29 2
10	11 15 21	7	13 1 48	3	14 48 14			30	18 32 58
11	11 19 17	8	13 5 44	4	14 52 11	1	16 38 38	31	18 36 55

SIDEREAL TIME—TABLE II—Correction for years

(Correction to the result of Table I for the years 1941 to 1951)

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
	m s	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*
Jan. & Feb.	+0 16	−0 41	−1 38	−2 36	+0 24	−0 34	−1 31	−2 28	+0 31	−0 26
Mar. to Dec.	+0 16	−0 41	−1 38	+1 21	+0 24	−0 34	−1 31	+1 28	+0 31	−0 26

1951 : −1*m* 24*s*

SIDEREAL TIME—TABLE III—Correction for places

Corrections for a few places are given below. For other places see the last page of Indian Ephemeris or the Tables of Ascendants.

Place	Correction	Place	Correction	Place	Correction
	m s		*m s*		*m s*
Allahabad	+0 0	Colombo	+0 2	Madras	+0 1
Bangalore	+0 2	Dhaka	−0 5	New York	+1 43
Bangkok	−0 12	Delhi	+0 3	Rangoon	−0 9
Bombay	+0 6	Greenwich	+0 54	Islamabad	+0 6
Calcutta	−0 4	Kuala Lumpur	−0 13	Varanasi	−0 0

The time interval of the epoch from 12h noon Local Mean Time is now to be subtracted from (if before noon) or added to (if after noon) the Sidereal time obtained from the above tables for 12h noon of the date and place in question. Before doing so the time interval is to be increased by 10 secs. per hour and then subtracted or added.

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1941										
January	2° S 28′	11° N 50′	1° S 11′	12° N 18′	0° N 23′	19° S 13′	1° N 04′	21° S 30′	1° S 16′	24° S 38′
February	2 19	12 07	1 01	13 03	0 N01	22 58	0 S19	21 34	1 S04	13 21
March	2 11	12 49	0 54	14 24	0 S23	23 35	1 14	13 S02	3 N27	6 52
April	2 06	13 50	0 49	16 12	0 57	21 17	1 24	1 N10	2 S04	8 S13
May	2 02	14 57	0 45	18 03	1 37	16 27	0 41	15 11	0 S57	12 N01
June	2 02	16 04	0 42	19 47	2 06	9 37	0 S34	23 48	1 N58	25 20
July	2 04	16 54	0 41	21 01	3 15	3 S02	1 N27	21 48	4 S24	18 36
August	2 08	17 26	0 41	21 51	4 00	2 N17	1 28	10 N44	0 S21	21 29
September	2 14	17 39	0 41	22 19	4 30	4 58	0 N17	5 S24	0 N55	4 N 9
October	2 19	17 29	0 42	22 28	3 51	4 03	1 S29	19 07	2 S44	15 S25
November	2 22	17 03	0 42	22 25	1 51	2 54	2 57	26 15	0 N47	10 S02
December	2 S21	16 N30	0 S40	22 N11	0 S 09	5 N16	2 S53	23 S54	0 N42	18 S17
1942										
January	2 S15	16 N08	0 S35	21 N51	0 N45	10 N10	0 N16	15 S11	2 S02	24 S43
February	2 06	16 10	0 28	21 41	1 13	16 07	7 21	9 30	1 N47	10 50
March	1 58	16 35	0 23	21 54	1 23	20 40	6 38	12 18	0 N45	16 00
April	1 51	17 22	0 17	22 26	1 27	24 04	2 N00	11 00	2 S20	4 S25
May	1 46	18 14	0 13	22 57	1 25	24 49	0 S58	2 S38	1 N28	20 N08
June	1 44	19 03	0 10	23 16	1 21	23 00	2 08	9 N04	0 S03	23 20
July	1 44	19 43	0 07	23 14	1 15	18 50	1 47	19 08	3 S56	19 03
August	1 46	20 12	0 04	22 51	1 05	12 21	0 S26	22 29	1 N39	19 N50
September	1 50	20 25	0 S01	22 15	0 55	5 N02	0 N51	16 12	0 S35	0 S54
October	1 54	20 25	0 N02	21 37	0 44	2 S50	1 27	3 N12	3 S41	13 21
November	1 57	20 12	0 06	21 14	0 29	11 02	1 01	12 S19	2 N04	6 45
December	1 S56	19 N53	0 N11	21 N24	0 N12	17 S40	0 S03	22 S24	0 S53	22 S46
1943										
January	1 S52	19 N36	0 N16	21 N58	0 S06	22 S16	1 S08	22 S58	1 S54	22 S43
February	1 45	19 31	0 20	22 38	0 28	23 50	1 N32	12 S37	3 N12	17 48
March	1 38	19 44	0 22	22 55	0 50	21 55	0 S57	1 N20	1 S23	17 S13
April	1 30	20 11	0 24	22 54	1 12	16 42	0 N26	15 54	1 S26	1 N25
May	1 25	20 43	0 25	22 32	1 32	9 S10	1 52	24 45	2 N42	22 51
June	1 22	21 17	0 26	21 43	1 48	0 N00	2 26	23 43	3 S32	16 09
July	1 20	21 41	0 28	20 33	1 52	8 14	1 N07	14 24	1 S04	22 07
August	1 20	21 54	0 30	19 03	1 45	14 58	2 S45	2 N40	1 N31	15 N33
September	1 21	22 01	0 33	17 13	1 23	19 45	8 27	1 S58	2 S51	4 S46
October	1 23	22 01	0 37	15 31	0 S43	22 09	5 19	4 N48	0 S25	1 N33
November	1 25	21 58	0 42	14 07	0 N24	23 37	0 S19	2 N52	1 N04	11 S04
December	1 S23	21 N55	0 N49	13 N21	1 N54	24 N25	2 N09	6 S32	1 S56	24 S56
1944										
January	1 S22	21 N50	0 N57	13 N34	2 N41	23 N52	2 N25	16 S58	0 N13	20 S58
February	1 16	21 48	1 03	14 44	2 37	24 09	1 N09	22 12	0 N53	21 37
March	1 10	21 54	1 06	15 57	2 20	25 12	0 S23	17 48	2 S09	14 S08
April	1 03	22 06	1 04	16 41	2 01	25 27	1 23	5 S54	0 N55	10 N36
May	0 58	22 20	1 01	16 33	1 44	23 59	1 25	8 N25	1 N01	16 47
June	0 54	22 31	0 58	15 33	1 27	20 11	0 S30	20 32	3 S21	13 44
July	0 52	22 35	0 56	13 57	1 12	14 43	0 N38	23 36	1 N21	24 N22
August	0 50	22 31	0 55	11 54	0 56	7 49	1 24	16 42	0 S04	9 56
September	0 49	22 22	0 56	9 25	0 39	0 N26	1 12	2 N02	4 S24	0 23
October	0 49	22 14	0 58	7 00	0 22	8 S20	0 N07	12 S55	1 N52	3 N51
November	0 49	22 12	1 03	4 48	0 N05	15 35	1 S16	23 25	0 S30	16 S56
December	0 S48	22 N19	1 N09	3 N07	0 S14	21 S08	2 S10	24 S25	2 S24	25 S51

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decli	Lat.	Decli	Lat.	Decli
1945										
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
January	0 S46	22 N30	1 N16	2 N15	0 S32	23 S54	1 S44	15 S24	3 N08	20 S08
February	0 41	22 40	1 25	2 33	0 50	22 49	0 N35	0 S01	1 S02	22 26
March	0 37	22 47	1 30	3 42	1 03	18 25	3 59	12 N55	1 S47	9 S25
April	0 32	22 50	1 31	5 18	1 13	10 25	7 31	19 22	3 N11	13 N42
May	0 27	22 49	1 27	6 10	1 17	1 S20	3 N12	9 58	2 S20	4 49
June	0 24	22 41	1 20	5 59	1 12	7 N31	1 S52	8 43	1 S36	17 05
July	0 21	22 24	1 14	4 51	0 59	15 10	3 S05	15 36	1 N53	22 56
August	0 19	21 58	1 10	2 50	0 37	20 48	2 06	21 19	2 S53	7 24
September	0 16	21 31	1 07	0 N29	0 S09	23 14	0 S23	19 25	1 S27	12 N46
October	0 14	21 08	1 06	2 S01	0 N29	23 18	1 N05	9 N41	1 N23	1 S14
November	0 12	20 58	1 07	4 43	1 24	22 08	1 35	5 S16	1 S58	21 S28
December	0 S09	21 N06	1 N10	6 S52	2 N30	21 N58	1 N00	17 S58	0 S19	23 S30
1946										
January	0 S06	21 N29	1 N16	8 S26	3 N55	24 N20	0 S09	23 S35	1 N17	21 S40
February	0 S03	21 56	1 23	9 11	4 11	26 31	1 11	18 30	1 S57	21 03
March	0 N00	22 12	1 29	8 59	3 28	26 07	1 26	6 S40	0 S00	2 S11
April	0 03	22 17	1 33	7 52	2 38	24 20	0 S46	8 N58	1 N56	1 N58
May	0 06	22 08	1 32	6 30	1 59	21 16	0 N28	21 00	2 S54	2 55
June	0 08	21 44	1 26	5 39	1 28	16 25	1 37	24 43	0 N41	22 43
July	0 11	21 10	1 18	5 48	1 02	10 14	1 49	18 03	0 N45	19 59
August	0 13	20 25	1 10	6 57	0 39	2 N42	0 N37	4 N15	4 S57	12 44
September	0 16	19 37	1 05	8 48	0 N17	5 S23	1 S55	11 S06	1 N24	14 N31
October	0 20	18 56	1 01	10 56	0 S03	13 00	4 N51	22 41	0 N02	7 S31
November	0 24	18 31	0 59	13 12	0 22	19 35	5 S58	26 27	2 S51	23 16
December	0 N28	18 N31	0 N58	15 S12	0 S38	23 S31	0 S01	17 S17	2 N35	15 S34
1947										
January	0 N32	18 N57	1 N00	16 S53	0 S53	23 S51	3 N59	15 S30	0 S27	23 S51
February	0 36	19 37	1 03	18 01	1 02	20 00	3 25	19 55	1 S56	17 S27
March	0 38	20 07	1 06	18 29	1 06	13 31	1 N31	19 37	3 N05	0 N04
April	0 39	20 22	1 10	18 23	1 03	4 S22	0 S34	11 S33	1 S08	7 S40
May	0 40	20 14	1 12	17 43	0 55	4 N57	1 39	1 N17	2 S03	7 N22
June	0 41	19 44	1 09	16 47	0 39	13 35	1 32	14 42	2 N07	25 32
July	0 42	18 57	1 02	16 13	0 S20	19 48	0 S32	22 36	2 S10	18 37
August	0 44	17 57	0 54	16 21	0 N04	23 13	0 N43	21 07	2 S27	19 39
September	0 47	16 52	0 47	17 13	0 30	23 26	1 23	10 N14	1 N38	9 N09
October	0 51	15 53	0 42	18 28	0 59	21 08	1 08	4 S36	1 S36	12 S40
November	0 56	15 10	0 38	19 53	1 35	17 20	0 N04	18 28	1 S51	19 08
December	1 N02	14 N56	0 N35	21 S07	2 N19	13 N43	1 S09	24 S36	1 N41	16 S14
1948										
January	1 N08	15 N15	0 N3	22 S05	3 N20	11 N56	1 S46	19 S44	1 S38	24 S51
February	1 13	16 00	0 32	22 38	4 20	14 04	1 S10	6 S14	0 S23	12 19
March	1 15	16 45	0 31	22 52	4 19	17 30	0 N16	8 N48	2 N26	11 51
April	1 15	17 14	0 31	22 55	3 11	18 25	2 35	21 51	2 S22	7 S12
May	1 14	17 14	0 30	22 56	2 06	15 39	3 56	27 17	0 N03	15 N40
June	1 12	16 45	0 28	22 55	1 16	10 37	2 N23	25 22	1 N26	24 51
July	1 12	15 53	0 24	22 49	0 40	4 N14	3 S16	19 40	4 S43	18 44
August	1 12	14 13	0 19	22 43	0 N11	3 S19	5 16	18 10	0 N48	21 34
September	1 14	13 25	0 14	22 48	0 S14	11 06	2 55	18 40	0 N23	2 N01
October	1 18	12 12	0 09	23 04	0 34	17 54	0 S18	13 18	3 S17	15 S34
November	1 23	11 13	0 06	23 19	0 50	22 53	1 N29	1 N29	1 N57	6 14
December	1 N30	10 N43	0 N02	23 S22	1 S01	24 S25	1 N52	11 S48	0 S00	20 S36

LATITUDES AND DECLINATIONS

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli
1949										
January	1° N38′	10° N50′	0° S01′	23° S03′	1° S06′	21° S50′	1° N01′	21° S32′	2° S10′	23° S53′
February	1 44	11 31	0 04	22 22	1 05	15 22	0 S18	21 45	3 N19	12 59
March	1 47	12 21	0 07	21 32	0 58	7 S20	1 14	13 S14	0 S20	17 13
April	1 47	13 06	0 10	20 38	0 45	2 N25	1 23	1 N27	2 S06	2 S25
May	1 44	13 21	0 15	20 04	0 28	11 16	0 S39	15 25	2 N09	21 N52
June	1 41	13 00	0 21	20 04	0 S08	18 31	0 N34	23 47	1 S44	20 N50
July	1 38	12 11	0 26	20 39	0 N12	22 46	1 27	21 50	2 S48	20 02
August	1 37	10 58	0 31	21 30	0 33	23 52	1 27	10 N29	1 N47	18 N19
September	1 37	9 33	0 33	22 03	0 54	21 49	0 N17	5 S09	1 S28	3 S02
October	1 40	8 11	0 34	22 07	1 14	17 36	1 S29	18 56	2 S59	8 05
November	1 45	6 58	0 34	21 39	1 36	11 58	3 01	26 21	1 N46	8 12
December	1 N52	6 N12	0 S34	20 S42	2 N01	6 N20	2 S54	23 S57	1 S21	23 S47
1950										
January	2 N00	6 N02	0 S35	19 S13	2 N30	1 N26	0 N50	15 S03	1 S15	21 S28
February	2 08	6 31	0 37	17 18	3 07	1 S13	7 29	10 26	2 N47	19 54
March	2 13	7 21	0 40	15 20	3 34	0 S23	6 21	13 00	1 S47	16 S46
April	2 13	8 17	0 44	13 08	3 11	3 N28	1 N58	11 24	0 S36	5 N17
May	2 10	8 46	0 50	11 18	1 56	4 56	0 S57	2 S56	2 N31	22 00
June	2 05	8 40	0 57	10 03	0 N47	2 N08	2 05	9 N15	3 S50	13 52
July	2 00	8 00	1 06	9 48	0 S00	3 S11	1 44	19 17	0 S05	23 19
August	1 57	6 51	1 14	10 37	0 33	9 56	0 S26	22 33	1 N01	13 N03
September	1 56	5 25	1 18	12 05	0 56	16 44	0 N53	16 01	3 S43	4 S12
October	1 57	3 58	1 17	13 13	1 11	22 02	1 27	2 N56	0 N58	4 N57
November	2 01	2 36	1 13	13 25	1 18	24 41	1 N02	12 S08	0 N25	13 S39
December	2 N08	1 N38	1 S08	12 S34	1 S18	23 S24	0 S03	22 S20	2 S16	25 S35
1951										
January	2 N16	1 N11	1 S04	10 S47	1 S10	18 S02	1 S09	22 S53	2 N23	20 S34
February	2 24	1 34	1 02	8 20	0 56	9 39	1 32	12 S50	0 S02	22 17
March	2 30	2 06	1 01	5 47	0 40	0 S54	0 S58	1 N06	2 S08	13 S11
April	2 32	3 05	1 03	2 52	0 20	8 N37	0 N28	16 08	1 N54	12 N41
May	2 30	3 48	1 06	0 S11	0 S00	16 23	1 55	24 51	0 S23	11 17
June	2 24	3 58	1 11	2 N08	0 N19	21 51	2 29	23 53	2 S40	14 06
July	2 17	3 31	1 18	3 41	0 N36	21 02	1 N10	14 44	1 N42	24 18
August	2 12	2 31	1 27	4 15	0 S52	23 00	2 S59	2 N54	0 S56	8 48
September	2 09	1 N10	1 35	3 40	1 05	19 09	8 29	0 S46	3 S54	5 30
October	2 09	0 S17	1 38	2 14	1 17	13 33	5 13	5 N37	1 N52	2 N51
November	2 11	1 43	1 55	0 48	1 28	6 44	0 S12	3 04	1 S02	15 S31
December	2 N16	2 S40	1 S27	0 N21	1 N38	0 S02	2 N09	6 S38	2 S10	25 S37

Year	Uranus		Neptune		Pluto	
	Lat.	Decli	Lat.	Decli	Lat.	Decli
1941	0° S16′	18° N09′	1° N16′	2° N04′	4° N22′	23° N18′
1942	0 12	19 15	1 18	1 15	4 48	23 24
1943	0 09	20 15	1 21	0 N25	5 10	23 27
1944	0 06	21 09	1 23	0 S24	5 36	23 30
1945	0 S02	21 55	1 26	1 14	5 59	23 36
1946	0 N02	22 34	1 28	2 04	6 26	23 36
1947	0 05	23 04	1 30	2 53	6 52	23 32
1948	0 09	23 26	1 32	3 42	7 19	23 30
1949	0 13	23 39	1 34	4 31	7 45	23 24
1950	0 16	23 41	1 36	5 19	8 12	23 17
1951	0 N20	23 N34	1 N37	6 S06	8 N39	23 N12

SAYANA TRANSIT OF SUN

(Sun's entry into Tropical Signs or Sayana Rasis)

Time in I.S.T.

Sign	1941			1942			1943			1944		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	16·1	Jan.	20	21·9	Jan.	21	3·8	Jan.	21	9·6
Pisces	Feb.	19	6·4	Feb.	19	12·2	Feb.	19	18·2	Feb.	19	23·9
Aries	Mar.	21	5·7	Mar.	21	11·5	Mar.	21	17·6	Mar.	20	23·3
Taurus	Apr.	20	17·1	Apr.	20	22·9	Apr.	21	5·0	Apr.	20	10·8
Gemini	May	21	16·6	May	21	22·5	May	22	4·6	May	21	10·4
Cancer	June	22	0·7	June	22	6·5	June	22	12·7	June	21	18·6
Leo	July	23	11·6	July	23	17·4	July	23	23·6	July	23	5·4
Virgo	Aug.	23	18·5	Aug.	24	0·3	Aug.	24	6·4	Aug.	23	12·3
Libra	Sept.	23	15·8	Sept.	23	21·6	Sept.	24	3·7	Sept.	23	9·5
Scorpio	Oct.	24	0·8	Oct.	24	6·6	Oct.	24	12·7	Oct.	23	18·5
Sagittarius	Nov.	22	22·1	Nov.	23	3·9	Nov.	23	9·9	Nov.	22	15·6
Capricorn	Dec.	22	11·3	Dec.	22	17·1	Dec.	22	23·0	Dec.	22	4·8
	1945			1946			1947			1948		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	15·4	Jan.	20	21·3	Jan.	21	3·0	Jan.	21	8·8
Pisces	Feb.	19	5·8	Feb.	19	11·6	Feb.	19	17·4	Feb.	19	23·1
Aries	Mar.	21	5·1	Mar.	21	11·0	Mar.	21	16·7	Mar.	20	22·5
Taurus	Apr.	20	16·6	Apr.	20	22·6	Apr.	21	4·2	Apr.	20	9·9
Gemini	May	21	16·2	May	21	22·1	May	22	3·7	May	21	9·5
Cancer	June	22	0·2	June	22	6·3	June	22	11·8	June	21	17·7
Leo	July	23	11·3	July	23	17·1	July	23	22·8	July	23	4·7
Virgo	Aug.	23	18·1	Aug.	23	23·9	Aug.	24	5·7	Aug.	23	11·6
Libra	Sept.	23	15·3	Sept.	23	21·2	Sept.	24	3·0	Sept.	23	8·9
Scorpio	Oct.	24	0·2	Oct.	24	6·1	Oct.	24	11·9	Oct.	23	17·8
Sagittarius	Nov.	22	21·4	Nov.	23	3·3	Nov.	23	9·1	Nov.	22	15·0
Capricorn	Dec.	22	10·6	Dec.	22	16·4	Dec.	22	22·2	Dec.	22	4·1
	1949			1950			1951			1952		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	14·7	Jan.	20	20·5	Jan.	21	2·4	Jan.	21	8·2
Pisces	Feb.	19	5·0	Feb.	19	10·8	Feb.	19	16·7	Feb.	19	22·5
Aries	Mar.	21	4·3	Mar.	21	10·1	Mar.	21	15·9	Mar.	20	21·7
Taurus	Apr.	20	15·8	Apr.	20	21·5	Apr.	21	3·3	Apr.	20	9·1
Gemini	May	21	15·4	May	21	21·0	May	22	2·8	May	21	8·6
Cancer	June	21	23·6	June	22	5·1	June	22	10·9	June	21	16·7
Leo	July	23	10·5	July	23	16·0	July	23	21·9	July	23	3·7
Virgo	Aug.	23	17·3	Aug.	23	22·9	Aug.	24	4·8	Aug.	23	10·6
Libra	Sept.	23	14·6	Sept.	23	20·2	Sept.	24	2·1	Sept.	23	7·9
Scorpio	Oct.	23	23·6	Oct.	24	5·3	Oct.	24	11·1	Oct.	23	16·9
Sagittarius	Nov.	22	20·8	Nov.	23	2·5	Nov.	23	8·4	Nov.	22	14·1
Capricorn	Dec.	22	9·9	Dec.	22	15·7	Dec.	22	21·5	Dec.	22	3·3

Example of Moon's latitude

Find the latitude of Moon at 5-30 A.M. on May 25, 1945.

At the epoch Moon = 6s 17° 11′, Rahu = 2s 16° 20′. Moon − Rahu = 4s 00° 51′ = 120° 51′. Against this figure, the latitude is obtained from the table on page 82 as 4° 25′N approximately (actual value is 4° 27′ N)

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0′S	360°	45°	N3° 38′S	315°	90°	N5° 9′S	270°	135°	N3° 38′S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declination of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North ; if greater than 180° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long	Trop. Long.	Decli.	Trop. Long.
0°	0° 0′	180°	23°	8° 57′	157°	46°	16° 39′	134°	69°	21° 49′	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	60	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, the true decli. = decli. of place + reduced lat.

If lat. is South, the true decli. = decli. of place − reduced lat.

When declination of Place is South—

If lat. is North, the true decli. = decli of place − reduced lat.

If lat. is South, the true decli. = decli of place + reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
0°	180°	180°	360°	0·917	50°	130°	230°	310°	0·963
10	170	190	350	0·920	60	120	240	300	0·978
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

Example :—Find the declination of Moon on 25 May 1945. N. long. of Moon on that date = 6s 17° 11′. *Ayanamsa* = 23° 5′. Therefore trop. long. = 7s 10° 16′ = 220° 16′. Now the *declination of place* is found to be 14° S 54′ and the *multiplier* is found from the above table as 0·949. The latitude of Moon on that date is 4°N25′ = 265′. This multiplied by ·949 gives 251′ = 4°11′N. Here we get declination of place as south and the latitude as north. Hence the true declination = 14°S54′ − 4°11′ = 10°S43′ (The actual value is however 10° S 41′).

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ☉. If ☽ − ☉ is less than 12°, the 1st *tithi* of the light half (*Sukla paksha*) is then current. This *tithi* will remain current until ☽ − ☉ becomes exactly 12° degrees. So for other *tithis* also.

The following table shows the long. of ☽ − ☉ indicating the end of each *tithi*. If ☽ − ☉ is greater than 6 signs, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half (*Krishna paksha*) of the month.

☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Entrance of Planets into Nirayana Signs

MARS

Enters :—	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y
Mesha				28	8	41	28	6	43	2	6	45	12	5	47	21	4	49	1	4	51
"				28	12	41															
Virisha				23	2	42	12	8	43	13	7	45	21	6	47	31	5	49	12	5	51
Mithuna				15	4	42	14	3	44	27	8	45	3	7	47	13	7	49	24	6	51
"										14	1	46									
Karkata				3	6	42	10	5	44	22	10	45	19	9	47	27	8	49	8	8	51
"										5	4	46	1	3	48						
Simha				21	7	42	30	6	44	8	6	46	14	11	47	15	10	49	24	9	51
"													29	4	48	20	4	50			
Kanya				6	9	42	18	8	44	29	7	46	5	7	48	10	12	49	11	11	51
"																17	5	50			
Tulā				22	10	42	3	10	44	14	9	46	24	8	48	30	7	50	6	1	52
Vṛścika				5	12	42	16	11	44	28	10	46	7	10	48	16	9	50			
Dhanus	8	2	41	17	1	43	27	12	44	8	12	46	18	11	48	28	10	50			
Makara	23	3	41	27	2	43	5	2	45	16	1	47	27	12	48	6	12	50			
Kumbha	6	5	41	8	4	43	16	3	45	24	2	47	3	2	49	14	1	51			
Mina	20	6	41	18	5	43	24	4	45	3	4	47	13	3	49	21	2	51			
"	16	9	41																		

JUPITER

Enters :—		
Vṛṣa	on	Apr. 27, 1941
Mithuna	"	May 9, 1942
Karkata	"	Oct. 6, "
Mithuna R.	"	Dec. 19 "
Karkaṭa	"	May 27, 1943
Simha	"	Oct. 23, 1943
Karkaṭa R	"	Feb. 4, 1944
Simha	"	June 19, "
Kanya	"	Nov. 1, "
Simha R	"	Mar. 9, 1945
Kanyā	"	July 18, "
Tulā	"	Dec. 19, "
Kanyā R	"	Apr. 8, 1946

Enters :—		
Tulā	on	Aug. 19, 1946
Vṛścika	"	Jan. 18, 1947
Tulā R	"	May 11, "
Vṛścika	"	Sept. 17, "
Dhanus	"	Feb. 11, 1948
Vṛścika R	"	June 22, "
Dhanus	"	Oct. 8, "
Makara	"	Feb. 28, 1949
Dhanus R	"	Aug. 27, "
Makara	"	Oct. 11, "
Kumbha	"	Mar. 13, 1950
Mīna	"	Mar. 23, 1951
Meṣa	"	Mar. 31, 1952

SATURN

Enters :—		
Vṛṣa	on	June 18, 1941
Meṣa R	"	Dec. 14, 1941
Vṛṣa	"	Mar. 3, 1942
Mithuna	"	Aug. 5, 1943
Vṛṣa R	"	Dec. 17, 1943
Mithuna	"	Apr. 23, 1944

Enters :—		
Karkata	on	Sept. 22, 1945
Mithuna R	"	Dec. 22, 1945
Karkata	"	June 8, 1946
Simha	"	July 26, 1948
Kanyā	"	Sept. 20, 1950
Tula	"	Nov. 25, 1952

URANUS

Enters :—		
Vṛṣa	on	Mar. 16, 1941
Mithuna	on	July 3, 1947

Enters :—		
Vṛṣa R	on	Jan. 10, 1948
Mithuna	"	Apr. 18, 1948

NEPTUNE remains in Kanyā during 1941 to 1951.

PLUTO remains in Karkaṭa during 1941 to 1951.

RAHU (True)

Enters :—		
Simha	on	Sept. 6, 1941
Karkaṭa	"	Apr. 18, 1943
Mithuna	"	Oct. 16, 1944
Vṛṣa	"	Apr. 7, 1946

Enters :—		
Meṣa	on	Dec. 18, 1947
Mīna	"	June 25, 1949
Kumbha	"	Dec. 20, 1950
Makara	"	June 15, 1952

LUNAR ECLIPSES

(The timings are given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality begins		Totality ends		Eclipse ends		Visibility in India
	h	m	h	m	h	m	h	m	h	m	
1941 Mar. 13P	17	25	16	25	—		—		18	26	Partly visible
,, Sept. 5P	23	17	22	49	—		—		23	45	Visible
1942 Mar. 3T	5	52	4	01	5	03	6	40	7	42	Partly visible
,, Aug. 26T	9	18	7	28	8	30	10	06	11	08	Invisible
1943 Feb. 20P	11	09	9	35	—		—		12	43	,,
,, Aug. 15P	24	58	23	26	—		—		26	30	Visible
1945 June 25P	20	45	19	09	—		—		22	22	Visible
,, Dec. 19T	7	49	6	06	7	10	8	30	9	33	Partly visible
1946 June 14T	24	09	22	12	23	22	24	56	26	05	Visible
,, Dec. 8T	23	18	21	42	22	50	23	47	24	55	,,
1947 June 3P	24	46	24	27	—		—		25	05	,,
1948 Apr. 23P	19	09	18	50	—		—		19	28	,,
1949 Apr. 13T	9	41	7	58	8	58	10	24	11	24	Invisible
,, Oct. 7T	8	26	6	35	7	50	9	03	10	18	Partly Visible
1950 Apr. 3T	2	14	0	39	1	59	2	29	3	49	Visible
,, Sept. 26T	9	47	8	02	9	24	10	10	11	32	Invisible

T = Total lunar eclipse P = Partial lunar eclipse

SOLAR ECLIPSES

(Given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality or Annu. begins		Totality or Annu. ends		Eclipse ends		Visibility in India
	h	m	h	m	h.	m	h	m	h	m	
1941 Mar. 27 R	25	19	22	42	23	56	27	20	28	33	Invisible
,, Sept. 21 T	9	48	7	28	8	30	11	37	12	39	,,
1942 Mar. 17 P	5	08	3	14	—		—		7	02	,,
,, Aug. 12 P	8	14	7	18	—		—		9	10	,,
,, Sept. 10 P	21	11	19	24	—		—		22	58	,,
1943 Feb. 5 T	5	08	2	57	—		—		7	20	,,
,, Aug. 1 R	9	45	7	06	—		—		12	25	,,
1944 Jan. 25 T	20	56	18	18	—		—		23	34	,,
,, July 20 R	11	13	8	13	—		—		14	13	Visible
1945 Jan. 14 R	10	27	7	52	8	57	12	05	13	10	Invisible
,, July 9 T	18	55	16	30	17	44	20	11	21	25	Partly visible
1946 Jan. 3 P	17	46	15	55	—		—		19	36	Invisible
,, May 31 P	2	30	0	38	—		—		4	22	,,
,, June 29 P	9	22	8	27	—		—		10	16	,
,, Nov. 23 P	23	07	20	54	—		—		25	19	,,
1947 May 20 T	19	05	16	41	17	39	20	55	21	54	,,
,, Nov. 12 R	25	19	22	44	23	50	27	20	28	26	,,
1948 May 9 R	8	14	5	10	6	17	9	36	10	41	Visible
,, Nov. 1 T	11	46	8	49	9	49	13	08	14	09	Partly visible
1949 Apr. 28 P	13	18	11	22	—		—		15	15	Invisible
,, Oct. 22 P	2	43	0	45	—		—		4	40	,,
1950 Mar. 18 R	21	02	18	41	20	39	21	25	23	23	,,
,, Sept. 12 T	9	09	6	53	8	20	9	57	11	24	,,
1951 Mar. 7 R	26	23	23	34	24	36	28	10	29	13	,,
.. Sept. 1 R	18	21	15	25	16	29	20	14	21	18	..

T = Total solar eclipse R = Annular solar eclipse P = Partial solar eclipse

Motion of planets

Movement of the Sun and planets (except Mercury) from 5-30 a.m. of the preceding given date up to the desired moment can be found from the following table according to the motion for 2 days obtained from the ephemeris

Day and Time (I.S.T.)		Motion for 2 days								
		10′	20′	30′	40′	50′	1°-00′	1°-30′	2°-00′	2°-30′
		′	′	′	′	′	° ′	° ′	° ′	° ′
Given date	5-30 a.m.	0	0	0	0	0	0 00	0 00	0 00	0 00
" "	11-30 a.m.	1	2	4	5	6	0 08	0 12	0 15	0 19
" "	5-30 p.m.	3	5	8	10	12	0 15	0 23	0 30	0 38
" "	11-30 p.m.	4	7	11	15	19	0 23	0 34	0 45	0 56
2nd day "	5-30 a.m.	5	10	15	20	25	0 30	0 45	1 00	1 15
" "	11-30 a.m.	6	12	19	25	31	0 38	0 57	1 15	1 34
" "	5-30 p.m.	8	15	23	30	38	0 45	1 08	1 30	1 53
" "	11-30 p.m.	9	17	26	35	44	0 53	1 19	1 45	2 11
3rd day "	5-30 a.m.	10	20	30	40	50	1 00	1 30	2 00	2 30
Motion for 3 hrs.		1	1	2	2	3	4	6	7	10

Motion of Moon

Movement of the Moon up to the desired moment from 5-30 A.M. of the given date can be found according to its daily motion obtained from the ephemeris

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0′	15° 30′
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
5 30 a.m.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 53
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 a.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 p.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 49
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 p.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 a.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 a.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Rahu, Uranus, Neptune and Pluto

Motion for 30 days distributed

Day	20′	40′	1°–0′	1°–30′	1°–35′	1°–40′	2°–0′	2°–30′	3°–0′	3°–30′
	′	′	′	′	′	′	′	′	′	′
2	1	3	4	6	6	7	8	10	12	14
4	3	5	8	12	13	13	16	20	24	28
6	4	8	12	18	19	20	24	30	36	42
8	5	11	16	24	25	27	32	40	48	56
10	7	13	20	30	32	33	40	50	1–0	1–10
15	10	20	30	45	48	50	1–0	1–15	1–30	1–45
20	13	27	40	1–0	1–3	1–7	1–20	1–40	2–0	2–20
25	17	33	50	1–15	1–19	1–23	1–40	2–5	2–30	2–55
30	20	40	60	1–30	1–35	1–40	2–0	2–30	3–0	3–30

Longitudes of Planets at the given time

The longitudes of planets (including Sun and Moon) required for any given moment can be calculated from those provided in the ephemeris for the two epochs one preceding and the other following the given moment, by utilising the motion for 2 days (one day in case of Mercury and also of Moon) obtained from the ephemeris by subtraction. In the calculation, the tables given on the previous page may be used, or to be more accurate, the two logarithmic tables given at the end of the book may be utilised.

For the longitude of the Moon (and also of Mercury) the logarithmic calculation is to be done with the help of Table I alone but for other planets both Tables I and II will have to be used. Example for finding the moon's longitude by Prop. Logarithm has been given at the bottom of Table I on page 97. The use of the table in case of other planets is illustrated below.

Example I—Find the long. of Sun on Aug: 15, 1947 at 0*h*30*m* A.M. (i.e. after midnight of Aug. 14). Long. of Sun on Aug. 13, 1947, 5-30 A.M. = $3^{s}\,26^{\circ}\,17'$; motion in next two days 1° 55′, its log from Table I – 1·0977. Aug. 15th is the third day from Aug. 13th. So from Table II under column next given date and against the given time 0-30 A.M., the log is found to be ·0478. The sum of these two logarithms is 1·1455, which is the logarithm of 1°43′ nearly (from Table I). Hence the required longitude of Sun is $3^{s}26^{\circ}17' + 1^{\circ}43' = 3^{s}28^{\circ}0'$. In the same way the longitudes of Saturn, Jupiter, Mars and Venus can be obtained.

Example II—For Mercury the calculation is slightly different. For example let us find the long. of Mercury on Aug 16, 1947, at 3-0 A.M. The longitude has been given for Aug. 15 ($=3^{s}14^{\circ}5'$) and for Aug. 16 ($=3^{s}\,15^{\circ}\,55'$). Hence the motion for 1 day = 1° 50′ ; its log is 1·1170 (Table I). Aug. 16th is second day from Aug. 15th. From Table II in the portion for Mercury, log second day 3-0 A.M. = ·0478. Sum of these two is 1·1648, which is the log of 1°39′ (Table I). Hence the required long. of Mercury is $3^{s}\,14^{\circ}\,5' + 1^{\circ}39' = 3^{s}15^{\circ}44'$.

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon s ° ′	Krittikādi Daśā	y	m	d	Ardrādi Daśā	y	m	d
1 Aśvinī	0 0 0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0 13 20		5	3	0		3	0	0
3 Kṛttikā	0 26 40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1 10 0		4	0	0		14	0	0
5 Mṛgaśiras	1 23 20		2	0	0		7	0	0
6 Ārdrā	2 6 40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2 20 0		11	3	0		4	6	0
8 Puṣya	3 3 20		7	6	0		3	0	0
9 Aśleṣā	3 16 40		3	9	0		1	6	0
10 Maghā	4 0 0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4 13 20		5	4	0		10	0	0
12 U. Phalguni	4 26 40		2	8	0		5	0	0
13 Hasta	5 10 0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5 23 20		12	9	0		6	0	0
15 Svātī	6 6 40		8	6	0		4	0	0
16 Viśākhā	6 20 0		4	3	0		2	0	0
17 Anurādha	7 3 20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7 16 40		6	8	0		11	4	0
19 Mūla	8 0 0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8 13 20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8 26 40		12	8	0		6	8	0
22 Sravaṇa	9 10 0		6	4	0		3	4	0
23 Dhaniṣṭhā	9 23 20	Rahu	12	0	0	Jupiter	19	0	0
24 Satabhiṣaj	10 6 40		8	0	0		12	8	0
25 P. Bhadrapada	10 20 0		4	0	0		6	4	0
26 U. Bhādrapadā	11 3 20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11 16 40		15	9	0		9	0	0
1 Aśvinī	12 0 0		10	6	0		6	0	0

Proportional Parts for Dasa of Planets

(To be subtracted from the balance of dasa given above)

Long. of Moon	Sun (6y)		Moon (15y)		Mars (8y)		Mercury (17y)		Saturn (10y)		Jupiter (19y)		Rahu (12y)		Venus (21y)	
Krittikadi	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0° 10′	0	9·0	0	16·9	0	12·0	0	19·1	0	15·0	0	28·5	0	18·0	0	23·6
1 0	1	24·0	3	11·3	2	12 0	3	24·6	3	0·0	5	21·0	3	18·0	4	21·8
1 20	2	12·0	4	15·0	3	6·0	5	3·0	4	0·0	7	18·0	4	24·0	6	9·0
4 0	7	6·0	13	15·0	9	18·0	15	9·0	12	0·0	22	24·0	14	12·0	18	27·0
13 20	24	0·0	45	0·0	32	0·0	51	0·0	40	0·0	76	0·0	48	0·0	63	0·0
Nakshatras	3, 4, 5		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2	
Ardradi	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0° 10′	0	6·8	0	22·5	0	9·0	0	25·5	0	15·0	0	28.5	0	13.5	1	1·5
1 0	1	10·5	4	15·0	1	24·0	5	3·0	3	0·0	5	21.0	2	21.0	6	9·0
1 20	1	24·0	6	0·0	2	12·0	6	24·0	4	0·0	7	18·0	3	18.0	8	12·0
4 0	5	12·0	18	0·0	7	6·0	20	12·0	12	0·0	22	24·0	10	24.0	25	6·0
13 20	18	0·0	60	0·0	24	0·0	68	0 0	40	0·0	76	0·0	36	0.0	84	0·0
Nakshatras	6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2		3,4,5	

ASTOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—15						Mars (Mangala)—8							
	Sub Periods			Total			Sub Periods			Total			Sub Periods				Total			
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	h	y	m	d	h
Sun	0	4	0	0	4	0		—			—				—			—		
Moon	0	10	0	1	2	0	2	1	0	2	1	0			—			—		
Mars	0	5	10	1	7	10	1	1	10	3	2	10	0	7	3	8	0	7	3	8
Mercury	0	11	10	2	6	20	2	4	10	5	6	20	1	3	3	8	1	10	6	16
Saturn	0	6	20	3	1	10	1	4	20	6	11	10	0	8	26	16	2	7	3	8
Jupiter	1	0	20	4	2	0	2	7	20	9	7	0	1	4	26	16	4	0	0	0
Rahu	0	8	0	4	10	0	1	8	0	11	3	0	0	10	20	0	4	10	20	0
Venus	1	2	0	6	0	0	2	11	0	14	2	0	1	6	20	0	6	5	10	0
Sun		—			—		0	10	0	15	0	0	0	5	10	0	6	10	20	00
Moon		—			—			—			—		1	1	10	0	8	0	0	0

DASA

Antardaśā	Mercury (Budha)—17								Saturn (Sani)—10							
	Sub Periods				Total				Sub Periods				Total			
	y	m	d	h	y	m	d	h	y	m	d	h	y	m	d	h
Mercury	2	8	3	8	2	8	3	8		—				—		
Saturn	1	6	26	16	4	3	0	0	0	11	3	8	0	11	3	8
Jupiter	2	11	26	16	7	2	26	16	1	9	3	8	2	8	6	16
Rahu	1	10	20	0	9	1	16	16	1	1	10	0	3	9	16	16
Venus	3	3	20	0	12	5	6	16	1	11	10	0	5	8	26	16
Sun	0	11	10	0	13	4	16	16	0	6	20	0	6	3	16	16
Moon	2	4	10	0	15	8	26	16	1	4	20	0	7	8	6	16
Mars	1	3	3	8	17	0	0	0	0	8	26	16	8	5	3	8
Mercury		—				—			1	6	26	16	10	0	0	0

DASA

Antardaśā	Jupiter (Brihaspati)—19								Rahu—12						Venus (Sukra)—21					
	Sub Periods				Total				Sub Periods			Total			Sub Periods			Total		
	y	m	d	h	y	m	d	h	y	m	d	y	m	d	y	m	d	y	m	d
Jupiter	3	4	3	8	3	4	3	8		—			—			—			—	
Rahu	2	1	10	0	5	5	13	8	1	4	0	1	4	0		—			—	
Venus	3	8	10	0	9	1	23	8	2	4	0	3	8	0	4	1	0	4	1	0
Sun	1	0	20	0	10	2	13	8	0	8	0	4	4	0	1	2	0	5	3	0
Moon	2	7	20	0	12	10	3	8	1	8	0	6	0	0	2	11	0	8	2	0
Mars	1	4	26	16	14	3	0	0	0	10	20	6	10	20	1	6	20	9	8	20
Mercury	2	11	26	16	17	2	26	16	1	10	20	8	9	10	3	3	20	13	0	10
Saturn	1	9	3	8	19	0	0	0	1	1	10	9	10	20	1	11	10	14	11	20
Jupiter		—				—			2	1	10	12	0	0	3	8	10	18	8	0
Rahu		—				—				—			—		2	4	0	21	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon		*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
°	'		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
0	0	Ketu	7	0	0	SUN	4	6	0	MARS	3	6	0	JUPITER	4	0	0
0	20		6	9	27		4	4	6		3	3	27		3	7	6
0	40		6	7	24		4	2	12		3	1	24		3	2	12
1	0		6	5	21		4	0	18		2	11	21		2	9	18
1	20		6	3	18		3	10	24		2	9	18		2	4	24
1	40		6	1	15		3	9	0		2	7	15		2	0	0
2	0		5	11	12		3	7	6		2	5	12		1	7	6
2	20		5	9	9		3	5	12		2	3	9		1	2	12
2	40		5	7	6		3	3	18		2	1	6		0	9	18
3	0		5	5	3		3	1	24		1	11	3		0	4	24
3	20		5	3	0		3	0	0		1	9	0	Saturn	19	0	0
3	40		5	0	27		2	10	6		1	6	27		18	6	9
4	0		4	10	24		2	8	12		1	4	24		18	0	18
4	20		4	8	21		2	6	18		1	2	21		17	6	27
4	40		4	6	18		2	4	24		1	0	18		17	1	6
5	0		4	4	15		2	3	0		0	10	15		16	7	15
5	20		4	2	12		2	1	6		0	8	12		16	1	24
5	40		4	0	9		1	11	12		0	6	9		15	8	3
6	0		3	10	6		1	9	18		0	4	6		15	2	12
6	20		3	8	3		1	7	24		0	2	3		14	8	21
6	40		3	6	0		1	6	0	Rahu	18	0	0		14	3	0
7	0		3	3	27		1	4	6		17	6	18		13	9	9
7	20		3	1	24		1	2	12		17	1	6		13	3	18
7	40		2	11	21		1	0	18		16	7	24		12	9	27
8	0		2	9	18		0	10	24		16	2	12		12	4	6
8	20		2	7	15		0	9	0		15	9	0		11	10	15
8	40		2	5	12		0	7	6		15	3	18		11	4	24
9	0		2	3	9		0	5	12		14	10	6		10	11	3
9	20		2	1	6		0	3	18		14	4	24		10	5	12
9	40		1	11	3		0	1	24		13	11	12		9	11	21
10	0		1	9	0	Moon	10	0	0		13	6	0		9	6	0
10	20		1	6	27		9	9	0		13	0	18		9	0	9
10	40		1	4	24		9	6	0		12	7	6		8	6	18
11	0		1	2	21		9	3	0		12	1	24		8	0	27
11	20		1	0	18		9	0	0		11	8	12		7	7	6
11	40		0	10	15		8	9	0		11	3	0		7	1	15
12	0		0	8	12		8	6	0		10	9	18		6	7	24
12	20		0	6	9		8	3	0		10	4	6		6	2	3
12	40		0	4	6		8	0	0		9	10	24		5	8	12
13	0		0	2	3		7	9	0		9	5	12		5	2	21
13	20	Venus	20	0	0		7	6	0		9	0	0		4	9	0
13	40		19	6	0		7	3	0		8	6	18		4	3	9
14	0		19	0	0		7	0	0		8	1	6		3	9	18
14	20		18	6	0		6	9	0		7	7	24		3	3	27
14	40		18	0	0		6	6	0		7	2	12		2	10	6
15	0		17	6	0		6	3	0		6	9	0		2	4	15
15	20		17	0	0		6	0	0		6	3	18		1	10	24
15	40		16	6	0		5	9	0		5	10	6		1	5	3
16	0		16	0	0		5	6	0		5	4	24		0	11	12
16	20		15	6	0		5	3	0		4	11	12		0	5	21
16	40		15	0	0		5	0	0		4	6	0	Mercur.	17	0	0
17	0		14	6	0		4	9	0		4	0	18		16	6	27
17	20		14	0	0		4	6	0		3	7	6		16	1	24
17	40		13	6	0		4	3	0		3	1	24		15	8	21
18	0		13	0	0		4	0	0		2	8	12		15	3	18
18	20		12	6	0		3	9	0		2	3	0		14	10	15
18	40		12	0	0		3	6	0		1	9	18		14	5	12
19	0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimsottari Dasa—contd.

Long. of Moon		*Moon in* Meṣa, Simha, Dhanus				*Moon in* Vṛṣa, Kanyā, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkaṭa Vṛścika, Mina			
°	′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
19	0	VENUS	11	6	0	MOON	3	3	0	RAHU.	1	4	6	MERC.	14	0	9
19	20		11	0	0		3	0	0		0	10	24		13	7	6
19	40		10	6	0		2	9	0		0	5	12		13	2	3
20	0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20	20		9	6	0		2	3	0		15	7	6		12	3	27
20	40		9	0	0		2	0	0		15	2	12		11	10	24
21	0		8	6	0		1	9	0		14	9	18		11	5	21
21	20		8	0	0		1	6	0		14	4	24		11	0	18
21	40		7	6	0		1	3	0		14	0	0		10	7	15
22	0		7	0	0		1	0	0		13	7	6		10	2	12
22	20		6	6	0		0	9	0		13	2	12		9	9	9
22	40		6	0	0		0	6	0		12	9	18		9	4	6
23	0		5	6	0		0	3	0		12	4	24		8	11	3
23	20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23	40		4	6	0		6	9	27		11	7	6		8	0	27
24	0		4	0	0		6	7	24		11	2	12		7	7	24
24	20		3	6	0		6	5	21		10	9	18		7	2	21
24	40		3	0	0		6	3	18		10	4	24		6	9	18
25	0		2	6	0		6	1	15		10	0	0		6	4	15
25	20		2	0	0		5	11	12		9	7	6		5	11	12
25	40		1	6	0		5	9	9		9	2	12		5	6	9
26	0		1	0	0		5	7	6		8	9	18		5	1	6
26	20		0	6	0		5	5	3		8	4	24		4	8	3
26	40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27	0		5	10	6		5	0	27		7	7	6		3	9	27
27	20		5	8	12		4	10	24		7	2	12		3	4	24
27	40		5	6	18		4	8	21		6	9	18		2	11	21
28	0		5	4	24		4	6	18		6	4	24		2	6	18
28	20		5	3	0		4	4	15		6	0	0		2	1	15
28	40		5	1	6		4	2	12		5	7	6		1	8	12
29	0		4	11	12		4	0	9		5	2	12		1	3	9
29	20		4	9	18		3	10	6		4	9	18		0	10	6
29	40		4	7	24		3	8	3		4	4	24		0	5	3
30	0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7*y*)		Venus (20*y*)		Sun (6*y*)		Moon (10*y*)		Mars (7*y*)		Rāhu (18*y*)		Jupiter (16*y*)		Saturn (19*y*)		Merc. (17*y*)		
′	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

VIMSOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6		Moon (Chandra)—10		Mars (Mangala)—7	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Sun	0 3 18	0 3 18	—	—	—	—
Moon	0 6 0	0 9 18	0 10 0	0 10 0	—	—
Mars	0 4 6	1 1 24	0 7 0	1 5 0	0 4 27	0 4 27
Rahu	0 10 24	2 0 18	1 6 0	2 11 0	1 0 18	1 5 15
Jupiter	0 9 18	2 10 6	1 4 0	4 3 0	0 11 6	2 4 21
Saturn	0 11 12	3 9 18	1 7 0	5 10 0	1 1 9	3 6 0
Mercury	0 10 6	4 7 24	1 5 0	7 3 0	0 11 27	4 5 27
Ketu	0 4 6	5 0 0	0 7 0	7 10 0	0 4 27	4 10 24
Venus	1 0 0	6 0 0	1 8 0	9 6 0	1 2 0	6 0 24
Sun	—	—	0 6 0	10 0 0	0 4 6	6 5 0
Moon	—	—	—	—	0 7 0	7 0 0

DASA

Antardaśā	Rahu—18		Jupiter (Brihaspati)—16		Saturn (Sani)—19	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Rahu	2 8 12	2 8 12	—	—	—	—
Jupiter	2 4 24	5 1 6	2 1 18	2 1 18	—	—
Saturn	2 10 6	7 11 12	2 6 12	4 8 0	3 0 3	3 0 3
Mercury	2 6 18	10 6 0	2 3 6	6 11 6	2 8 9	5 8 12
Ketu	1 0 18	11 6 18	0 11 6	7 10 12	1 1 9	6 9 21
Venus	3 0 0	14 6 18	2 8 0	10 6 12	3 2 0	9 11 21
Sun	0 10 24	15 5 12	0 9 18	11 4 0	0 11 12	10 11 3
Moon	1 6 0	16 11 12	1 4 0	12 8 0	1 7 0	12 6 3
Mars	1 0 18	18 0 0	0 11 6	13 7 6	1 1 9	13 7 12
Rahu	—	—	2 4 24	16 0 0	2 10 6	16 5 18
Jupiter	—	—	—	—	2 6 12	19 0 0

DASA

Antardaśā	Mercury (Budha)—17		Ketu—7		Venus (Sukra)—20	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Mercury	2 4 27	2 4 27	—	—	—	—
Ketu	0 11 27	3 4 24	0 4 27	0 4 27	—	—
Venus	2 10 0	6 2 24	1 2 0	1 6 27	3 4 0	3 4 0
Sun	0 10 6	7 1 0	0 4 6	1 11 3	1 0 0	4 4 0
Moon	1 5 0	8 6 0	0 7 0	2 6 3	1 8 0	6 0 0
Mars	0 11 27	9 5 27	0 4 27	2 11 0	1 2 0	7 2 0
Rahu	2 6 18	12 0 15	1 0 18	3 11 18	3 0 0	10 2 0
Jupiter	2 3 6	14 3 21	0 11 6	4 10 24	2 8 0	12 10 0
Saturn	2 8 9	17 0 0	1 1 9	6 0 3	3 2 0	16 0 0
Mercury	—	—	0 11 27	7 0 0	2 10 0	18 10 0
Ketu	—	—	—	—	1 2 0	20 0 0

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Navamsa Signs and their Lords

NAVAMSAS

Sign	1st 0° 0′ to 3°20′	2nd 3°20′ to 6°40′	3rd 6° 40′ to 10°0′	4th 10° 0′ to 13°20′	5th 13°20′ to 16°40′	6th 16°40′ to 20° 0′	7th 20° 0′ to 23°20′	8th 23°20′ to 26°40′	9th 26° 40′ to 30° 0′
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vrischika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Rasi) of Mesha etc. The Lords of the navamsa signs are indicated by the planetary symbols.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakṣatra	Long.			Vimśottarī Daśā		Nakṣatra	Long.			Vimśottarī Daśā	
	s	°	′		yrs.		s.	°	′		yrs.
1 Aśvinī	0	0	0	Ketu	7	15 Svātī	6	6	40	Rāhu	18
2 Bharaṇī	0	13	20	Venus	20	16 Viśākhā	6	20	0	Jupiter	16
3 Kṛttikā	0	26	40	Sun	6	17 Anurādhā	7	3	20	Saturn	19
4 Rohiṇī	1	10	0	Moon	10	18 Jyeṣṭhā	7	16	40	Mercury	17
5 Mṛgaśiras	1	23	20	Mars	7	19 Mūla	8	0	0	Ketu	7
6 Ārdrā	2	6	40	Rāhu	18	20 Pūrvāṣāḍhā	8	13	20	Venus	20
7 Punarvasu	2	20	0	Jupiter	16	21 Uttarāṣāḍhā	8	26	40	Sun	6
8 Puṣya	3	3	20	Saturn	19	22 Sravaṇa	9	10	0	Moon	10
9 Aśleṣā	3	16	40	Mercury	17	23 Dhaniṣṭhā	9	23	20	Mars	7
10 Maghā	4	0	0	Ketu	7	24 Śatabhiṣaj	10	6	40	Rāhu	18
11 P. Phalgunī	4	13	20	Venus	20	25 P.Bhādrapad	10	20	0	Jupiter	16
12 U. Phalgunī	4	26	40	Sun	6	26 U.Bhādrapad	11	3	20	Saturn	19
13 Hasta	5	10	0	Moon	10	27 Revatī	11	16	40	Mercury	17
14 Citrā	5	23	20	Mars	7	1 Aśvinī	12	0	0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

SUNRISE AND SUNSET

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the Indian Ephemeris and deduct it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is almost the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs., 8yrs., 12yrs., etc., and again after 21yrs., 25yrs. 29yrs., 33yrs., 37yrs., 41yrs., 45yrs.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T.+11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 28′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
January 1	6 15	5 51	6 26	5 41	6 37	5 30	6 50	5 17	6 57	5 11
5	17	53	27	43	38	32	51	19	57	14
9	18	56	29	45	39	35	52	22	58	17
13	20	5 58	29	48	39	38	52	25	58	20
17	21	6 0	30	50	40	40	52	28	58	23
21	21	1	31	52	40	43	51	31	57	26
25	22	3	31	54	40	45	50	34	55	30
29	22	4	30	56	39	47	49	37	54	33
Febry. 2	6 22	6 5	6 30	5 58	6 38	5 50	6 47	5 40	6 52	5 36
6	22	6	29	5 59	36	52	45	43	49	40
10	22	7	28	6 1	35	54	43	46	47	43
14	21	8	27	2	33	56	40	49	43	46
18	20	8	25	3	31	58	37	51	40	49
22	19	9	23	4	28	5 59	34	54	36	51
26	18	9	21	5	25	6 1	30	56	32	54
March 2	6 16	6 9	6 19	6 6	6 23	6 2	6 27	5 58	6 28	5 57
6	14	9	17	6	20	3	23	6 0	24	5 59
10	13	8	14	6	16	5	19	2	20	6 2
14	11	8	12	7	13	6	15	4	15	4
18	9	8	9	7	10	7	11	6	11	6
22	7	7	7	8	7	8	6	8	6	9
26	5	7	4	8	3	9	6 2	10	6 1	11
30	3	6	6 1	8	6 0	10	5 58	11	5 57	13
April 3	6 1	6 6	5 59	6 8	5 57	6 11	5 54	6 13	5 52	6 15
7	5 59	6	56	9	53	11	50	15	48	18
11	57	5	54	9	50	12	46	17	43	20
15	56	5	51	9	47	13	42	19	39	22
19	54	5	49	10	44	14	38	20	35	24
23	52	4	47	10	41	16	35	22	31	27
27	51	4	45	11	39	17	31	24	27	29
May 1	5 50	6 5	5 43	6 11	5 36	6 18	5 28	6 26	5 23	6 31
5	49	5	41	12	34	19	25	28	20	34
9	48	5	40	13	32	21	23	30	17	36
13	47	5	39	14	30	22	20	32	14	39
17	47	6	38	15	29	24	18	34	12	41
21	47	6	37	16	28	25	16	36	10	43
25	46	7	37	17	27	27	15	38	8	46
29	46	8	36	18	26	28	14	40	7	48
June 2	5 46	6 9	5 36	6 19	5 26	6 30	5 13	6 42	5 6	6 50
6	47	10	36	20	26	31	13	44	5	52
10	47	11	37	22	26	33	13	46	5	54
14	48	12	37	23	26	34	13	47	5	55
18	49	13	38	24	27	35	13	48	5	56
22	49	14	39	25	27	36	14	49	6	57
26	50	15	40	25	28	37	15	50	7	58
30	5 51	6 15	5 41	6 26	5 29	6 37	5 16	6 50	5 9	6 58

N.B.—To obtain Indian Standard Time of Sunrise and Sunset, apply to the above the difference between the standard time and the local time of the place. The I. S. T. corrections for the above places are given in brackets.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T. +11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 28′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
July 4	5 52	6 16	5 42	6 26	5 31	6 37	5 18	6 50	5 10	6 58
8	53	16	43	27	32	37	19	50	12	58
12	55	16	44	27	33	37	21	50	14	57
16	55	16	45	27	35	37	23	49	16	56
20	56	16	46	26	36	36	25	48	18	54
24	56	16	47	26	38	35	26	46	20	53
28	57	16	48	25	39	34	28	44	22	50
August 1	5 57	6 15	5 49	6 24	5 40	6 32	5 30	6 42	5 25	6 48
5	57	14	50	22	42	30	32	40	27	45
9	57	13	50	21	43	28	34	37	29	42
13	57	12	51	19	44	26	36	34	31	38
17	57	11	51	17	45	23	38	31	34	34
21	57	9	52	15	46	20	39	27	36	30
25	57	8	52	12	47	17	41	23	38	26
29	56	6	52	10	48	14	43	19	40	22
Septr. 2	5 56	6 4	5 52	6 7	5 49	6 11	5 44	6 15	5 42	6 17
6	55	2	52	5	50	8	46	11	44	13
10	55	6 0	52	6 2	50	4	47	7	46	8
14	54	5 58	52	5 59	51	6 1	49	6 3	48	6 3
18	53	55	52	56	52	5 57	50	5 58	50	5 58
22	53	53	52	53	52	54	52	54	52	54
26	52	51	53	51	53	50	54	50	54	49
30	52	49	53	48	54	47	55	45	56	44
October 4	5 51	5 47	5 53	5 45	5 55	5 43	5 57	5 41	5 58	5 40
8	51	45	53	43	56	40	5 59	37	6 0	35
12	50	43	53	40	57	37	6 0	33	2	31
16	50	41	54	38	58	34	2	29	5	26
20	50	40	54	36	5 59	31	5	25	7	22
24	50	39	55	34	6 0	28	7	22	10	18
28	50	38	56	32	2	26	9	19	13	15
Novr. 1	5 51	5 37	5 57	5 30	6 4	5 24	6 11	5 16	6 15	5 12
5	51	36	5 58	29	5	22	14	13	18	9
9	52	35	6 0	28	7	20	19	11	21	6
13	53	35	1	27	10	19	22	9	25	4
17	54	35	3	27	12	18	25	7	28	2
21	56	36	5	27	14	17	27	6	31	1
25	57	36	7	27	17	17	28	6	34	5 0
29	5 59	37	9	27	19	17	31	5	37	4 59
Decr. 3	6 1	5 38	6 11	5 28	6 21	5 18	6 34	5 5	6 40	4 59
7	3	40	13	29	24	19	37	6	43	5 0
11	5	41	15	31	26	20	40	6	46	0
15	7	43	18	32	29	21	42	7	49	2
19	9	45	20	34	31	23	44	9	51	3
23	11	47	22	36	33	25	46	11	53	5
27	13	49	24	38	35	27	48	13	55	7
31	6 15	5 51	6 25	5 40	6 37	5 29	6 50	5 16	6 56	5 10

Note :—These timings relate to the coincidence (astronomical or true) of the centre of the Sun with the horizon, without any correction for refraction. Correction for visibility of the upper limb : −3*m* for rise, +3*m* for set.

Proportional Logarithms for finding Planets' places—Tab. I

Min.	DEGREES OR HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6540	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1·6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1·6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1·6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1·5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1·5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1·5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1·5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1·5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1·5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1·4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1·4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1·4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1·4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3876	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1.0823	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Min.	DEGREES OR HOURS											Min.
	13	14	15	16	17	18	19	20	21	22	23	
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	4
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

Example :—Required longitude of moon on 15th Aug. 1947 at 0-30 A.M. I.S.T. Time from 5-30 A.M. (14th) is 19*h* 0*m*, log. of which = ·1015. Moon's daily motion is 15°2′, its log = ·2032. Sum of these two = ·3047 which is log of 11° 54′, the required movement. Hence the required longitude of moon is 2s 22° 24′ + 11° 54′ = 3s 4° 18′, *i.e.* *Karkata* 4° 18′.

Rule :—Add proportional log of planet's daily motion to log of time from 5-30 A.M., I. S. T. and the sum will be the log of the movement required. Add this movement to the given position of planet, if the time be after 5-30 A.M., but subtract if before, and the result will be the planet's true place at the given moment. (If retrograde subtract for add.)

Prop. Logarithms for finding Planets' Places—Table II

Log. of time interval from the given epoch.

Time (I.S.T.)	For all planets except Mercury & Moon			For Mercury & Moon	
	Given date	Second day	Next given date	Given date	Next day
h m					
0 00 A.M.		0·4141	0·0529		0·1130
0 30		·4025	·0478		·1015
1 00		·3912	·0428		·0902
1 30		·3802	·0378		·0792
2 00		·3695	·0329		·0685
2 30		·3590	·0280		·0580
3 00		·3488	·0232		·0478
3 30		·3388	·0185		·0378
4 00		·3291	·0138		·0280
4 30		·3195	·0091		·0185
5 00 A.M.		0·3102	0·0045		0·0091
5 30	∝	·3010	0·0000	∝	0·0000
6 00	1·9823	·2921		1·6812	
6 30	1·6812	·2833		1·3802	
7 00	1·5051	·2747		1·2041	
7 30	1·3802	·2663		1·0792	
8 00	1·2833	·2580		0·9823	
8 30	1·2041	·2499		·9031	
9 00	1·1372	·2419		·8361	
9 30	1·0792	·2341		·7781	
10 00 A.M.	1·0280	0·2264		0·7270	
10 30	0·9823	·2188		·6812	
11 00	·9409	·2114		·6598	
11 30	·9031	·2041		·6021	
12 00 (noon)	·8683	·1969		·5673	
12 30 P.M.	·8361	·1899		·5351	
1 00	·8062	·1829		·5051	
1 30	·7781	·1761		·4771	
2 00	·7518	·1694		·4508	
2 30	·7270	·1627		·4260	
3 60 P.M.	0·7035	0·1562		0·4025	
3 30	·6812	·1498		·3802	
4 00	·6601	·1434		·3590	
4 30	·6398	·1372		·3388	
5 00	·6205	·1310		·3195	
5 30	·6021	·1249		·3010	
6 00	·5843	·1189		·2833	
6 30	·5673	·1130		·2663	
7 03	·5509	·1072		·2499	
7 30	·5351	·1015		·2341	
8 00 P.M.	0·5199	0·0958		0·2188	
8 30	·5051	·0902		·2041	
9 00	·4909	·0846		·1899	
9 30	·4771	·0792		·1761	
10 00	·4638	·0738		·1627	
10 30	·4508	·0685		·1498	
11 00	·4382	·0632		·1372	
11 30	·4260	·0580		·1249	
12 00 (mid-night)	0·4141	0·0529		0·1130	

Rule :—Prop. Log. of time from the above Table II is to be added to log. of planet's 2 days' or 1 day's motion as the case may be from Table I, and the result will be the log. (Tab. I) of planet's required movement up to the moment from the previous given epoch.

Instructions for Erecting a Birth-Chart

At first obtain the date and time of birth and the name of the locality of birth, i.e. the birth place. If the time available be the local mean time of the place which was in vogue all over India before 1st January 1906. the same should be converted into the present I.S.T. by applying properly the local time correction for the place of birth. From 1st September 1947 the use of L.M.T. was completely abandoned and I.S.T. was adopted for all places of India. In some cases the time of birth is supplied in ghati (danda or nadika) and vighati (pala or vinadika). In that case convert ghati, vighati into hours and minutes applying the relation that 24 minutes make one ghati and 24 secs. make one vighati and add the result to the sunrise time, or to the Sunset time when the ghati and vigahati is given from sunset in case of birth in night. In this way the birth time is obtained in hours and minutes of the clock. But before that one should be sure, that the sunrise or sunset time available is not in L.M.T. nor in Local apparent time, but in I.S.T. In the former case obtain the sunrise time for the date and locality in question in I.S.T. by calculation and then obtain the birth time which is then in I.S.T. Conversion of time into L.M.T. and vice-versa into I S.T. has been discussed in author's TABLES OF ASCENDANTS. Both L.M.T. and I.S.T. would be required in the preparation of horoscope, so keep both the times recorded in the working sheet. For the birth place obtain the latitude and longitude measured from Greenwich. If the exact value of these coordinate are not known, then work with those of the nearest city available. The longitude will be utilised in finding the local time of place and the latitude in determining the Lagna or Ascendant.

Many foreign countries keep SUMMER TIME, i.e. they advance their clocks by one hour during summer seasons. In that case the recorded birth time should be reduced by one hour to obtain local standard time of birth. From that obtain also I. S. T. by correction given in Lahiri's Tables of Ascendants or Indian Ephemeris. From the same book calculate the Sidereal Time at birth and obtain the Ascendant or Lagna for the latitude of the place.

Then calculate the longitude of planets. The longitudes are given in Signs (Rasis), degrees and minutes. 60 minutes make one degree and 30 degrees make one rasi. From I.S.T. obtained or derived for the birth time, calculate the longitudes of planet (*grahasphute*). The longitudes are given for 5-30 A.M. I.S.T. If the birth time be exactly 5-30 A.M. or very near to it, then take the given longitudes as those for birth. The method of calculating the longitudes for any hour of I.S.T. has been illustrated in the Example given in the Ephemeris. For this, different tables have been given and the use of the log tables has also been illustrated.

Now the planets are to be placed in the birth chart The first figure in the longitude of a planet indicates the Rasi or Sign. For example if it is zero, place the planet in Mesha or Aries, if 1 place it in Vrisha or Tauras, 2 in Mithuna or Gemini, 3 in Karkata or Cancer and so on. The Ascendant or Lagna will have to be placed in the birth chart in a similar way. This completes casting of the nativity. The *nakshatra* division in which the moon or the planet falls can be ascertaind from the table given for the purpose on page 93. The *tithi* at birth time can be determined from the difference of longitudes of the Moon and Sun utilising the table on p-83. For Yoga add the longitude of Sun to that of Moon and consult the table of nakshatra on page 93 from which the number of Yoga current at birth time would be obtained. Then the balance of dasa is to be calculated. For this take the longitude of Moon and enter the table on page 90 and find the balance of Vimsottari dasa at the time of birth. Then go on adding the period of dasa of subsequent planets to arrive at the present age. The longitude utilised for all the above purposes are the nirayana longitude as given in the Ephemeris. If ayanamsa is added to the nirayana longitude, then the Sayana longitude of the planet will be obtained which are, however, not required in casting of a nativity in the Indian system.

—*FINIS*—

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OF

PLANETS' POSITIONS

ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

PART IV

COVERING ELEVEN YEARS

FROM 1951 TO 1961 A.D.

N. C. LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA

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(Sixth Edition)

BY

NIRMAL CHANDRA LAHIRI, M.A

Gaṇitācarya, Gaṇitakalānidhi.

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PREFACE

The present Condensed Ephemeis Part IV covering the years from 1951 to 1961 A.D. is published in order to meet the demand from the public for copies of the Ephemeris for individual years subsequent to 1951, some of which have gone out of print.

The arrangement of this part follows that of Part III and accordingly the longitudes of planets are given for 5-30 A.M., I.S.T. The longitudes for the years 1875 to 1941 given in Parts I and II of this series of ephemerides are, however, for 5-30 P.M. I.S.T.

The value of ayanāṁśa adopted for the Indian calendar portion of the Indian Ephemeris and Nautical Almanac of the Government of India is less by 5″·8 than the value adopted by me previously. In view of the smallness of the difference the revised value has been adopted from 1960 for the sake of uniformity.

ASTRO-RESEARCH BUREAU
CALCUTTA
April, 1962.

N. C. LAHIRI

Reprinted : MAY, 1965
MARCH, 1970 (giving some additional tables)
MARCH, 1975 (" " " "

Fifth Edition

This edition follows the arrangement of Part III. The longitudes have been given at interlvals of 2 days instead of their 4 day positions. Those of Moon and Mercury are given daily.

N. C. LAHIRI

1st August, 1979.
826079

Reprinted : JANUARY, 1984

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LOCAL MEAN TIME OF SUNRISE AND SUNSET

Date	Sunrise 0°	Sunrise 10°	Sunrise 20°	Sunrise 30°	Sunrise 35°	Mid-day	Sunset 0°	Sunset 10°	Sunset 20°	Sunset 30°	Sunset 35°
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	5 59	6 17	6 35	6 56	7 08	12 03	6 07	5 50	5 31	5 10	4 58
8	6 03	6 19	6 37	6 57	7 09	12 07	6 10	5 54	5 36	5 16	5 05
16	6 06	6 22	6 38	6 57	7 08	12 10	6 14	5 58	5 42	5 23	5 12
24	6 08	6 23	6 38	6 55	7 04	12 12	6 16	6 02	5 47	5 30	5 21
Feb. 1	6 10	6 23	6 36	6 51	6 59	12 14	6 18	6 05	5 52	5 37	5 29
9	6 11	6 21	6 33	6 45	6 53	12 14	6 18	6 07	5 56	5 44	5 36
17	6 11	6 19	6 28	6 38	6 45	12 14	6 18	6 09	6 00	5 50	5 44
25	6 10	6 16	6 23	6 31	6 35	12 13	6 17	6 10	6 03	5 56	5 52
Mar. 5	6 08	6 13	6 17	6 23	6 25	12 12	6 15	6 12	6 07	6 02	5 59
13	6 06	6 09	6 11	6 13	6 14	12 10	6 13	6 11	6 09	6 07	6 06
21	6 04	6 04	6 04	6 03	6 03	12 07	6 11	6 11	6 11	6 12	6 12
29	6 02	5 59	5 57	5 53	5 52	12 05	6 08	6 11	6 14	6 17	6 19
Apr. 6	5 59	5 55	5 50	5 44	5 40	12 03	6 06	6 11	6 16	6 21	6 25
14	5 57	5 50	5 43	5 35	5 30	12 00	6 04	6 11	6 18	6 26	6 31
22	5 55	5 46	5 37	5 26	5 20	11 59	6 02	6 11	6 20	6 31	6 38
30	5 54	5 43	5 32	5 19	5 11	11 57	6 01	6 11	6 23	6 36	6 44
May 8	5 53	5 41	5 27	5 12	5 03	11 56	6 00	6 12	6 26	6 41	6 50
16	5 53	5 39	5 24	5 06	4 56	11 56	6 00	6 14	6 29	6 47	6 57
24	5 53	5 38	5 21	5 02	4 51	11 57	6 00	6 16	6 33	6 52	7 03
June 1	5 54	5 38	5 20	4 59	4 47	11 58	6 01	6 18	6 36	6 56	7 08
9	5 55	5 38	5 20	4 58	4 46	11 59	6 03	6 20	6 39	7 00	7 13
17	5 57	5 39	5 20	4 58	4 45	12 01	6 04	6 22	6 41	7 03	7 16
25	5 59	5 41	5 22	5 00	4 47	12 02	6 06	6 24	6 43	7 05	7 18
July 3	6 01	5 43	5 24	5 03	4 51	12 04	6 08	6 25	6 43	7 05	7 18
11	6 03	5 45	5 27	5 06	4 54	12 05	6 09	6 25	6 43	7 01	7 16
19	6 03	5 47	5 30	5 11	4 59	12 06	6 10	6 25	6 42	7 01	7 13
27	6 03	5 48	5 33	5 15	5 05	12 06	6 10	6 24	6 39	6 57	7 07
Aug 4	6 02	5 50	5 36	5 20	5 11	12 06	6 09	6 22	6 36	6 51	7 00
12	6 02	5 51	5 39	5 25	5 17	12 05	6 08	6 19	6 31	6 44	6 52
20	6 00	5 51	5 41	5 30	5 23	12 03	6 07	6 16	6 25	6 36	6 43
28	5 58	5 51	5 43	5 34	5 29	12 01	6 05	6 12	6 19	6 28	6 33
Sept. 5	5 56	5 50	5 45	5 39	5 35	11 59	6 02	6 06	6 12	6 18	6 22
13	5 53	5 50	5 47	5 43	5 41	11 56	5 59	6 01	6 04	6 08	6 10
21	5 50	5 49	5 48	5 47	5 47	11 53	5 56	5 57	5 58	5 59	5 59
29	5 47	5 49	5 50	5 52	5 53	11 51	5 54	5 52	5 50	5 49	5 48
Oct. 7	5 45	5 48	5 52	5 56	5 59	11 48	5 51	5 47	5 43	5 39	5 36
15	5 43	5 48	5 54	6 01	6 05	11 46	5 49	5 43	5 37	5 30	5 26
23	5 41	5 49	5 58	6 07	6 12	11 44	5 48	5 40	5 31	5 22	5 16
31	5 40	5 50	6 01	6 13	6 20	11 44	5 47	5 37	5 26	5 14	5 07
Nov. 8	5 40	5 52	6 05	6 19	6 27	11 44	5 47	5 35	5 23	5 08	5 00
16	5 41	5 55	6 09	6 26	6 35	11 45	5 48	5 35	5 20	5 04	4 54
24	5 43	5 58	6 14	6 32	6 43	11 47	5 50	5 35	5 19	5 01	4 50
Dec. 2	5 46	6 02	6 19	6 39	6 50	11 49	5 53	5 37	5 20	5 00	4 48
10	5 49	6 06	6 24	6 45	6 57	11 53	5 56	5 39	5 21	5 01	4 49
18	5 53	6 10	6 29	6 50	7 02	11 56	6 00	5 43	5 24	5 03	4 51
26	5 57	6 14	6 33	6 54	7 06	12 00	6 04	5 47	5 28	5 07	4 55
Jan. 3	6 01	6 18	6 36	6 56	7 08	12 04	6 08	5 51	5 33	5 12	5 00

The timings relate to the visibility of the upper limb of the Sun on the horizon, and as such include refraction and limb-correction amounting to a total of about 3½ mins (3 mins. for 0° or 10° lat. and 4 mins. for 30° or 35° lat.) For this reason the above times have been obtained by *diminishing* the calculated figures by the above amount for sunrise and *increasing* for sunset.

The L. M. T. of rise and set for intermediate latitudes and dates may be obtained by simple proportion. Thereafter the timings can be converted into I.S.T. by inverse application of the local time correction for the place.

Example of a Foreign City

Date : 22nd March 1957, Friday.
Time : 7-00 p.m. Local Standard Time.
Place : Geneva (Switzerland).
Lat. 46° 12′ N. Long. 0° 09′ E.

As the place falls in the Time Zone of +1*h* which is the standard time of the country. G.M.T. of the moment is thus less by $1^h\ 0^m$ (i.e. G.M.T. is 7-00 p.m. *minus* 1-0=6-00 p.m. of 22 Mar.) and I.S.T. is in advance by $4^h\ 30^m$ (i.e. I.S.T. is 7-00 p.m. *plus* 4-30 =11-30 p.m. of 22 Mar.).

As the place is in the east of Greenwich, the L.M.T. of the moment is more* than G.M.T. by the time-equivalent of the longitude, i.e. by $0^h\ 24^m\ 36^s$ nearly ($6°\ 09' \times 4 = 24^m\ 36^s$). Hence the L.M.T. as obtained from G.M.T. is 6-00 p.m. *plus* 25^m=6-25 p.m. nearly of 22. 3. 57. This can also be obtained by applying the L.M.T. correction of -35^m to 7-00 p.m.

So time is 7-00 p.m. of 22 Mar..........Local Standard Time.
6-00 p.m. „ G.M.T. or U.T.
6-25 p.m. „ L.M.T. (for calculation of ascendant)
11-30 p.m. of 22 Mar. I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for 12*h* noon L.M.T. of 22 Mar. '57 at Geneva is *h* 23-57-13 (p. 76)+0*m*46*s* (Corr. for 1957) +50*s* (Corr. for Geneva)=*h* 23-58-49.

∴ Sidereal Time for 6-25 p.m. L.M.T.
=*h* 23-58-49+(*h* 6-25+1^m-03^s)=*h* 6-24-52.

Hence the ascendant for Latitude 46°N12′ is obtained from author's Tables of Ascendants as 5^s 11° 40′−0° 16′ (Corr. for 1957)=5^s-11°-24′ i.e., Kanya 11° 24′. From the short table given on Page 80 of the annual ephemeris, it is seen that the ascendant Kanya begins on 22 Mar. at 46°N latitude at *h* 17-34−6*m*=17-28 i.e. 5-28 p.m. L.M.T. which confirms the above result.

Planets—To be calculated for 11-30 p.m. I.S.T. of 22.3.57 which moment is *h* 18-00 after 5-30 a.m. I.S.T. of 22.3.57. The Moon is found for this epoch at 7^s 23° 59′+9° 21′=8^s 3° 20′ (Dhanus 3° 20′)

Similarly the positions of other planets are also to be obtained for the above hour of I.S.T.

---

*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS

FOR ELEVEN YEARS

FROM 1951 TO 1961 A.D.
„ 1872-73 „ 1882-83 ŚAKA ERA
„ 2007-08 „ 2017-18 SAMVAT ERA
„ 1357-58 „ 1367-68 (B.S.) BENGALI SAN
„ 1126-27 „ 1136-37 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Samvat era.
Samvat era „ with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat „ with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era „ on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5, after which the next year of Fusli begins. Hindi months begin from the date after full moon a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are the same as given in author's Advance Ephemeris.

The beginning dates of Saka, Samvat (two kinds), Bengali and Kollam eras and the Barhaspatya Varsa have been given for each year.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant 0*h* U.T. i.e. 0*h* G.M.T. Greenwich mean midnight or 5-30 A.M. Indian Standard Time (I.S.T.) or 5-53-30 A.M. Calcutta local time, which is also the same as 4-51-20 A.M. Bombay local time, and 5-20-59 A.M. Madras local time.

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of two days and those of Moon and Mercury have been given for each day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way : Vaiśākha—1, Jyaiṣṭha—2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6, Kārtika—7, Agrahāyana—8, Pauṣa—9, Māgha—10, Phālguna—11 & Chaitra—12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāṅgas* computed on orthodox methods. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e. mala* or *adhika māsa*.

The *sudi* half of the month begins when the number of the *tithi* is 1 and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi*.

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi	and	1	10	Māgha	sudi or sukla.
16	10	Phālguna	"	"	1	11	Phālguna	"
16	11	Chaitra	"	"	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	"	"	1	1	Vaisākha	"
16	1	Jyaistha	"	"	1	2	Jyaistha	"
16	2	Asādha	"	"	1	3	Asādha	"
16	3	Srāvana	"	"	1	4	Srāvana	"
16	4	Bhādra	"	"	1	5	Bhādra	"
16	5	Asvina (N.Y.)	"	"	1	6	Asvina	"
16	6	Kārtika	"	"	1	7	Kārtika	" (new year)
16	7	Agahā.	"	"	1	8	Mārga.	"
16	8	Pāusa	"	"	1	9	Pausa	"

The first figure in the longitude of a planet indicates the sign or *rāsi* of the *nirayana* zodiac, *viz.* 0 means that the planet is in Mesha (Aries), 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc., as shown in the last column of the symbols given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rāsi*.

SYMBOLS

☉—Sun	*Ravi, Sūrya*
☽—Moon	*Candra*
☿—Mercury	*Budha*
♀—Venus	*Śukra, Bhṛgu*
♂—Mars	*Maṅgala, Kuja*
♃—Jupiter	*Bṛhaspati, Guru*
♄—Saturn	*Śani*
♅—Uranus or Herschel	*Indra, Prajāpati*
♆—Neptune	*Varuṇa*
♇—Pluto	*Rudra, Yama*
☊—Ascending Node or Dragons head	*Rāhu*
☋—D. Node Dragon's tail	*Ketu*
⊕—Earth	*Pṛthivī*

♈—Aries	0	*Meṣa*
♉—Taurus	1	*Vṛṣa*
♊—Gemini	2	*Mithuna*
♋—Cancer	3	*Karkaṭa*
♌—Leo	4	*Siṁha*
♍—Virgo	5	*Kanyā*
♎—Libra	6	*Tulā*
♏—Scorpio	7	*Vṛścika*
♐—Sagittarius	8	*Dhanus*
♑—Capricornus	9	*Makara*
♒—Aquarius	10	*Kumbha*
♓—Pisces	11	*Mīna*

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

Standard time = Local time − 4 (E. Long.—82° 30′) mins. of time
or = Local time + 4 (82° 30′ − E. Long.) mins. of time.

Afterwards the old Railway time, the same as the local time of Madras ($5^h\ 21^m$ ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. Other changes of timings during the war period and afterwards are noted below :—

				Reduction to I.S.T.
		...	Calcutta time	—0*h* 23*m*
In Calcutta —	before 1st Oct., 1941	...	Bengal time	—1*h* 0*m*
In whole of Bengal from	1-10-41 to 14-5-42	...	I. S. T.	0*h* 0*m*
" " "	15-5-42 to 31-8-42	...	Bengal time	—1*h* 0*m*
" " "	1-9-42 to 31-8-47	...	I.S.T.	0*h* 0*m*
In West Bengal since 1st September, 1947		...		

In West Bengal since 1st September, 1947 ... from 1-9-42 to 14-10-45, and
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45
Bihar from 12-1-41 to 14-5-42 and again from 1-9-42 to 14-10-45 ... —1*h* 0*m*
observed Bengal time (otherwise I.S.T) ...
East Pakistan observed Bengal time for civil purposes and Pakistan standard time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51. From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30*m* more than I.S.T. and West Pakistan (now Pakistan) standard time is 30*m* less than I.S.T.

Saka era 1872-73, Saṁvat 2007-08 (Apr. 7, Oct. 31), B.S. 1357-58 (Apr. 15),
Kollam era 1126-27 (Aug. 17), 25 Khara (Apr. 7, Apr. 14).

Nirayana Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.

Date	Beng. Date	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.31	15 9	5 0 35	5 13 53	5 27 32	6 11 34	6 26 0	7 10 46	7 25 47
Jan. 7	22 9	8 10 54	8 25 57	9 10 45	9 25 11	10 9 10	10 22 40	11 5 43
14	29 9	11 18 21	0 0 40	0 12 45	0 24 41	1 6 32	1 18 23	2 0 17
21	7 10	2 12 18	2 24 26	3 6 43	3 19 11	4 1 49	4 14 37	4 27 37
28	14 10	5 10 50	5 24 16	6 7 56	6 21 52	7 6 4	7 20 29	8 5 4
Feb. 4	21 10	8 19 44	9 4 22	9 18 50	10 3 3	10 16 55	11 0 23	11 13 29
11	28 10	11 26 11	0 8 35	0 20 44	1 2 42	1 14 35	1 26 28	2 8 24
18	6 11	2 20 27	3 2 41	3 15 9	3 27 50	4 10 47	4 23 58	5 7 23
25	13 11	5 21 0	6 4 47	6 18 44	7 2 48	7 16 58	8 1 11	8 15 26
Mar. 4	20 11	8 29 39	9 13 46	9 27 45	10 11 32	10 25 4	11 8 19	11 21 16
11	27 11	0 3 56	0 16 20	0 28 30	1 10 31	1 22 25	2 4 18	2 16 14
18	4 12	2 28 17	3 10 33	3 23 5	4 5 56	4 19 6	5 2 37	5 16 27
25	11 12	6 0 32	6 14 49	6 29 13	7 13 37	7 27 59	8 12 14	8 26 21
Apr. 1	18 12	9 10 16	9 24 0	10 7 32	10 20 51	11 3 58	11 16 53	11 29 35
8	25 12	0 12 4	0 24 22	1 6 29	1 18 28	2 0 22	2 12 14	2 24 8
15	1 1	3 6 10	3 18 24	4 0 55	4 13 46	4 27 2	5 10 44	5 24 50
22	8 1	6 9 18	6 24 2	7 8 54	7 23 44	8 8 27	8 22 55	9 7 5
29	15 1	9 20 56	10 4 28	10 17 43	11 0 43	11 13 29	11 26 04	0 8 29
May 6	22 1	0 20 45	1 2 53	1 14 54	1 26 49	2 8 41	2 20 32	3 2 26
13	29 1	3 14 25	3 26 36	4 9 3	4 21 52	5 5 5	5 18 47	6 2 58
20	5 2	6 17 36	7 2 35	7 17 45	8 2 58	8 18 1	9 2 46	9 17 9
27	12 2	10 1 05	10 14 37	10 27 46	11 10 35	11 23 9	0 5 31	0 17 43
June 3	19 2	0 29 48	1 11 47	1 23 42	2 5 35	2 17 26	2 29 17	3 11 12
10	26 2	3 23 13	4 5 24	4 17 49	5 0 34	5 13 43	5 27 19	6 11 24
17	2 3	6 25 58	7 10 57	7 26 11	8 11 32	8 26 46	9 11 44	9 26 18
24	9 3	10 10 24	10 24 3	11 7 14	11 20 3	0 2 34	0 14 49	0 26 56
July 1	16 3	1 8 53	1 20 47	2 2 38	2 14 30	2 26 23	3 8 19	3 20 19
8	23 3	4 2 26	4 14 43	4 27 13	5 10 0	5 23 7	6 6 38	6 20 35
15	30 3	7 4 58	7 19 43	8 4 46	8 19 58	9 5 8	9 20 6	10 4 44
22	5 4	10 18 57	11 2 42	11 16 0	11 28 53	0 11 26	0 23 41	1 5 45
29	12 4	1 17 41	1 29 33	2 11 25	2 23 18	3 5 15	3 17 18	3 29 29
Aug. 5	19 4	4 11 49	4 24 20	5 7 3	5 20 0	6 3 14	6 16 47	7 0 38
12	26 4	7 14 49	7 29 18	8 14 0	8 28 50	9 13 41	9 28 25	10 12 54
19	2 5	10 27 3	11 10 48	11 24 9	0 7 7	0 19 43	1 2 2	1 14 7
26	9 5	1 26 4	2 7 56	2 19 48	3 1 44	3 13 47	3 25 59	4 8 23
Sept. 2	16 5	4 20 59	5 3 49	5 16 54	6 0 11	6 13 42	6 27 26	7 11 23
9	23 5	7 25 29	8 9 44	8 24 6	9 8 30	9 22 54	10 7 12	10 21 20
16	30 5	11 5 13	11 18 49	0 2 6	0 15 2	0 27 39	1 9 59	1 22 6
23	6 6	2 4 3	2 15 56	2 27 48	3 9 45	3 21 51	4 4 10	4 16 45
30	13 6	4 29 38	5 12 49	5 26 18	6 10 3	6 24 0	7 8 7	7 22 18
Oct. 7	20 6	8 6 31	8 20 43	9 4 52	9 18 56	10 2 54	10 16 44	11 0 25
14	27 6	11 13 55	11 27 13	0 10 16	0 23 3	1 5 36	1 17 53	1 29 59
21	3 7	2 11 55	2 23 46	3 5 37	3 17 33	3 29 38	4 11 59	4 24 39
28	10 7	5 7 41	5 21 8	6 4 58	6 19 9	7 3 35	7 18 10	8 2 46
Nov. 4	17 7	8 17 18	9 1 39	9 15 43	9 29 43	10 13 25	10 26 54	11 10 11
11	24 7	11 23 17	0 6 13	0 18 57	1 1 30	1 13 52	1 26 3	2 8 5
18	2 8	2 19 59	3 1 48	3 13 36	3 25 29	4 7 31	4 19 49	5 2 26
25	9 8	5 15 29	5 28 59	6 12 58	6 27 24	7 12 11	7 27 11	8 12 13
Dec. 2	16 8	8 27 9	9 11 50	9 26 12	10 10 12	10 23 52	11 7 12	11 20 15
9	23 8	0 3 4	0 15 42	0 28 8	1 10 26	1 22 36	2 4 38	2 16 34
16	30 8	2 28 25	3 10 13	3 22 1	4 3 53	4 15 54	4 28 8	5 10 41
23	7 9	5 23 37	6 7 1	6 20 55	7 5 19	7 20 9	8 5 17	8 20 34
30	14 9	9 5 48	9 20 50	10 5 30	10 19 46	11 3 36	11 17 0	0 0 2
Jan. 6	21 9	0 12 45	0 25 13	1 7 28	1 19 34	2 1 34	2 13 28	2 25 19

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Ayanamsa on 1st Jan. : 23° 10′ 30″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			मं ♂ मं			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	23	8	5	9	05	10	11	31	9	19	52	8	16	35	8	28	12	8R	18	36	8	17	15
3	25	8	5	9	07	10	11	54	9	21	26	8	18	37	9	0	43	8	15	54	8	14	35
5	27	8	5	9	09	10	12	17	9	23	01	8	20	39	9	3	13	8	13	21	8	12	14
7	30	8	5	9	10	10	12	40	9	24	35	8	22	42	9	5	44	8	11	15	8	10	26
9	2	9	5	9	11	10	13	04	9	26	10	8	24	44	9	8	14	8	9	46	8	9	16
11	4	9	5R.	9	11	10	13	28	9	27	44	8	26	46	9	10	45	8	8	57	8	8	46
13	6	9	5	9	11	10	13	52	9	29	19	8	28	49	9	13	15	8D	8	45	8	8	52
15	8	9	5	9	11	10	14	17	10	0	54	9	0	51	9	15	46	8	9	07	8	9	29
17	10	9	5	9	10	10	14	42	10	2	28	9	2	53	9	18	16	8	9	57	8	10	32
19	12	9	5	9	09	10	15	08	10	4	03	9	4	55	9	20	47	8	11	11	8	11	56
21	13	9	5	9	07	10	15	33	10	5	37	9	6	57	9	23	17	8	12	44	8	13	37
23	15	9	5	9	05	10	15	59	10	7	12	9	8	59	9	25	47	8	14	33	8	15	32
25	17	9	5	9	02	10	16	25	10	8	46	9	11	01	9	28	17	8	16	34	8	17	39
27	19	9	5	8	59	10	16	52	10	10	20	9	13	03	10	0	47	8	18	46	8	19	55
29	21	9	5	8	56	10	17	19	10	11	55	9	15	05	10	3	17	8	21	06	8	22	19
31	23	9	5	8	52	10	17	45	10	13	29	9	17	07	10	5	47	8	23	34	8	24	50
Feb. 2	26	9	5	8	48	10	18	13	10	15	03	9	19	09	10	8	17	8	26	08	8	27	27
4	28	9	5	8	43	10	18	40	10	16	38	9	21	11	10	10	46	8	28	47	9	0	08
6	30	9	5	8	38	10	19	07	10	18	12	9	23	12	10	13	16	9	1	31	9	2	55
8	2	10	5	8	33	10	19	35	10	19	46	9	25	14	10	15	46	9	4	20	9	5	46
10	4	10	5	8	27	10	20	03	10	21	20	9	27	16	10	18	15	9	7	12	9	8	40
12	6	10	5	8	21	10	20	31	10	22	54	9	29	17	10	20	44	9	10	09	9	11	38
14	8	10	5	8	15	10	20	59	10	24	27	10	1	18	10	23	14	9	13	09	9	14	40
16	10	10	5	8	08	10	21	28	10	26	01	10	3	20	10	25	43	9	16	13	9	17	46
18	12	10	5	8	01	10	21	56	10	27	35	10	5	21	10	28	12	9	19	20	9	20	55
20	14	10	5	7	54	10	22	25	10	29	08	10	7	22	11	0	40	9	22	31	9	24	08
22	16	10	5	7	46	10	22	53	11	0	42	10	9	23	11	3	09	9	25	46	9	27	25
24	18	10	5	7	38	10	23	22	11	2	15	10	11	23	11	5	38	9	29	04	10	0	45
26	20	10	5	7	30	10	23	51	11	3	48	10	13	24	11	8	06	10	2	27	10	4	10
28	22	10	5	7	22	10	24	20	11	5	21	10	15	25	11	10	34	10	5	53	10	7	38
Mar. 2	24	10	5	7	13	10	24	49	11	6	54	10	17	25	11	13	02	10	9	24	10	11	11
4	26	10	5	7	05	10	25	18	11	8	26	10	19	25	11	15	30	10	12	58	10	14	47
6	29	10	5	6	56	10	25	47	11	9	59	10	21	26	11	17	58	10	16	37	10	18	28
8	1	11	5	6	47	10	26	16	11	11	32	10	23	26	11	20	25	10	20	21	10	22	14
10	3	11	5	6	38	10	26	45	11	13	04	10	25	26	11	22	53	10	24	08	10	26	03
12	5	11	5	6	29	10	27	14	11	14	36	10	27	26	11	25	20	10	27	59	10	29	56
14	6	11	5	6	19	10	27	43	11	16	08	10	29	25	11	27	47	11	1	54	11	3	32
16	8	11	5	6	10	10	28	12	11	17	40	11	1	25	0	0	13	11	5	51	11	7	50
18	10	11	5	6	00	10	28	41	11	19	11	11	3	25	0	2	40	11	9	50	11	11	50
20	12	11	5	5	51	10	29	10	11	20	43	11	5	24	0	5	06	11	13	49	11	15	48
22	14	11	5	5	41	10	29	39	11	22	14	11	7	23	0	7	32	11	17	46	11	19	43
24	16	11	5	5	32	11	0	08	11	23	45	11	9	22	0	9	58	11	21	38	11	23	31
26	18	11	5	5	23	11	0	37	11	25	16	11	11	21	0	12	24	11	25	22	11	27	10
28	21	11	5	5	13	11	1	05	11	26	47	11	13	20	0	14	49	11	28	55	0	0	37
30	23	11	5	5	04	11	1	34	11	28	17	11	15	18	0	17	14	0	2	14	0	3	47
Apr. 1	25	11	5	4	55	11	2	03	11	29	48	11	17	17	0	19	39	0	5	15	0	6	38
3	27	11	5	4	46	11	2	31	0	1	18	11	19	15	0	22	03	0	7	56	0	9	08
5	29	11	5	4	37	11	3	00	0	2	48	11	21	13	0	24	27	0	10	14	0	11	14
7	1	12	5	4	28	11	3	28	0	4	18	11	23	12	0	26	51	0	12	08	0	12	55
9	3	12	5	4	19	11	3	56	0	5	47	11	25	10	0	29	15	0	13	36	0	14	10
11	5	12	5	4	11	11	4	24	0	7	17	11	27	07	1	1	39	0	14	38	0	14	59
13	7	12	5	4	03	11	4	52	0	8	46	11	29	05	1	4	02	0	15	13	0	15	21
15	8	12	5	3	55	11	5	19	0	10	15	0	1	03	1	6	24	0R	15	22	0	15	18
17	10	12	5	3	47	11	5	47	0	11	44	0	3	00	1	8	47	0	15	07	0	14	51

Ayanamsa on 1st Jan. : 23° 10′ 30″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	10	12	5R 3 47	11 5 47	0 11 44	0 3 00	1 8 47	0R 15 07	0 14 51
19	12	12	5 3 40	11 6 14	0 13 12	0 4 57	1 11 09	0 14 30	0 14 04
21	14	12	5 3 32	11 6 41	0 14 41	0 6 55	1 13 31	0 13 34	0 13 00
23	17	12	5 3 26	11 7 03	0 16 09	0 8 52	1 15 52	0 12 24	0 11 45
25	19	12	5 3 19	11 7 35	0 17 37	0 10 48	1 18 13	0 11 05	0 10 24
27	21	12	5 3 13	11 8 01	0 19 05	0 12 45	1 20 33	0 9 44	0 9 04
29	24	12	5 3 07	11 8 28	0 20 32	0 14 42	1 22 53	0 8 26	0 7 50
May 1	26	12	5 3 01	11 8 54	0 22 00	0 16 38	1 25 13	0 7 16	0 6 46
3	28	12	5 2 56	11 9 19	0 23 27	0 18 35	1 27 32	0 6 20	0 5 57
5	29	12	5 2 51	11 9 45	0 24 54	0 20 31	1 29 51	0 5 39	0 5 25
7	1	1	5 2 46	11 10 10	0 26 21	0 22 28	2 2 10	0 5 15	0 5 11
9	3	1	5 2 40	11 10 35	0 27 47	0 24 24	2 4 27	0D 5 11	0 5 15
11	5	1	5 2 38	11 11 00	0 29 14	0 26 20	2 6 45	0 5 25	0 5 39
13	7	1	5 2 35	11 11 24	1 0 40	0 28 16	2 9 02	0 5 57	0 6 20
15	9	1	5 2 32	11 11 48	1 2 06	1 0 11	2 11 18	0 6 47	0 7 19
17	11	1	5 2 29	11 12 11	1 3 31	1 2 07	2 13 34	0 7 54	0 8 33
19	13	1	5 2 27	11 12 35	1 4 57	1 4 03	2 15 49	0 9 16	0 10 03
21	15	1	5 2 25	11 12 58	1 6 22	1 5 58	2 18 03	0 10 53	0 11 46
23	18	1	5 2 24	11 13 20	1 7 47	1 7 53	2 20 17	0 12 43	0 13 43
25	20	1	5 2 22	11 13 42	1 9 12	1 9 49	2 22 30	0 14 47	0 15 53
27	22	1	5 2 22	11 14 04	1 10 37	1 11 44	2 24 42	0 17 02	0 18 14
29	24	1	5D 2 22	11 14 26	1 12 02	1 13 39	2 26 54	0 19 29	0 20 47
31	26	1	5 2 22	11 14 47	1 13 26	1 15 34	2 29 05	0 22 07	0 23 31
June 2	28	1	5 2 22	11 15 07	1 14 50	1 17 29	3 1 15	0 24 57	0 26 25
4	30	1	5 2 23	11 15 27	1 16 14	1 19 24	3 3 24	0 27 56	0 29 30
6	2	2	5 2 25	11 15 47	1 17 38	1 21 19	3 5 32	1 1 07	1 2 46
8	4	2	5 2 27	11 16 06	1 19 01	1 23 14	3 7 39	1 4 27	1 6 11
10	5	2	5 2 29	11 16 25	1 20 25	1 25 09	3 9 45	1 7 58	1 9 47
12	7	2	5 2 31	11 16 43	1 21 48	1 27 03	3 11 51	1 11 39	1 13 33
14	9	2	5 2 34	11 17 01	1 23 11	1 28 58	3 13 55	1 15 29	1 17 28
16	11	2	5 2 38	11 17 18	1 24 34	2 0 53	3 15 57	1 19 29	1 21 32
18	14	2	5 2 42	11 17 34	1 25 56	2 2 47	3 17 59	1 23 37	1 25 43
20	16	2	5 2 46	11 17 50	1 27 18	2 4 42	3 19 59	1 27 51	2 0 00
22	18	2	5 2 51	11 18 06	1 28 41	2 6 36	3 21 57	2 2 10	2 4 21
24	21	2	5 2 56	11 18 21	2 0 03	2 8 31	3 23 54	2 6 32	2 8 44
26	23	2	5 3 01	11 18 35	2 1 25	2 10 25	3 25 49	2 10 55	2 13 06
28	25	2	5 3 07	11 18 49	2 2 46	2 12 19	3 27 43	2 15 16	2 17 26
30	27	2	5 3 13	11 19 02	2 4 08	2 14 17	3 29 34	2 19 34	2 21 41
July 2	28	2	5 3 19	11 19 15	2 5 29	2 16 08	4 1 24	2 23 47	2 25 51
4	30	2	5 3 26	11 19 27	2 6 50	2 18 03	4 3 11	2 27 53	2 29 54
6	2	3	5 3 33	11 19 38	2 8 11	2 19 57	4 4 56	3 1 53	3 3 50
8	4	3	5 3 41	11 19 48	2 9 32	2 21 52	4 6 39	3 5 45	3 7 38
10	6	3	5 3 48	11 19 58	2 10 53	2 23 46	4 8 19	3 9 30	3 11 19
12	8	3	5 3 56	11 20 07	2 12 13	2 25 40	4 9 56	3 13 06	3 14 52
14	10	3	5 4 05	11 20 16	2 13 33	2 27 35	4 11 30	3 16 35	3 18 17
16	12	3	5 4 14	11 20 24	2 14 53	2 29 29	4 13 00	3 19 56	3 21 34
18	15	3	5 4 23	11 20 31	2 16 13	3 1 24	4 14 27	3 23 10	3 24 43
20	17	3	5 4 32	11 20 37	2 17 33	3 3 18	4 15 50	3 26 15	3 27 45
22	19	3	5 4 42	11 20 42	2 18 53	3 5 13	4 17 09	3 29 13	4 0 39
24	21	3	5 4 52	11 20 47	2 20 12	3 7 07	4 18 24	4 2 02	4 3 24
26	23	3	5 5 02	11 20 51	2 21 31	3 9 02	4 19 33	4 4 48	4 6 01
28	25	3	5 5 12	11 20 54	2 22 50	3 10 56	4 20 37	4 7 16	4 8 29
30	27	3	5 5 23	11 20 57	2 24 09	3 12 51	4 21 36	4 9 40	4 10 48
Aug. 1	29	3	5 5 34	11 20 59	2 25 28	3 14 46	4 22 28	4 11 54	4 12 57

Ayanamsa on 1st Jan. : 23° 10' 30"

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Aug. 1	29	3	5 5 34	11 20 59	2 25 28	3 14 46	4 22 28	4 11 54	4 12 47
3	1	4	5 5 45	11 21 00	2 26 47	3 16 41	4 23 14	4 13 57	4 14 55
5	2	4	5 5 57	11R21 00	2 28 05	3 18 36	4 23 53	4 15 50	4 16 41
7	4	4	5 6 09	11 20 59	2 29 24	3 20 31	4 24 24	4 17 30	4 18 15
9	6	4	5 6 20	11 20 58	3 0 42	3 22 26	4 24 48	4 18 57	4 19 34
11	9	4	5 6 33	11 20 55	3 2 00	3 24 21	4 25 03	4 20 08	4 20 38
13	11	4	5 6 45	11 20 52	3 3 18	3 26 16	4R25 09	4 21 03	4 21 24
15	13	4	5 6 57	11 20 48	3 4 36	3 28 11	4 25 06	4 21 40	4 21 51
17	15	4	5 7 10	11 20 44	3 5 53	4 0 06	4 24 53	4 21 57	4R21 58
19	18	4	5 7 23	11 20 38	3 7 11	4 2 02	4 24 31	4 21 52	4R21 42
21	20	4	5 7 36	11 20 32	3 8 28	4 3 57	4 23 59	4 21 25	4 21 03
23	22	4	5 7 50	11 20 25	3 9 45	4 5 53	4 23 18	4 20 55	4 20 01
25	24	4	5 8 03	11 20 18	3 11 02	4 7 49	4 22 29	4 19 23	4 18 39
27	25	4	5 8 16	11 20 09	3 12 19	4 9 44	4 21 32	4 17 52	4 17 00
29	27	4	5 8 30	11 20 00	3 13 36	4 11 40	4 20 28	4 16 07	4 15 11
31	29	4	5 8 44	11 19 50	3 14 52	4 13 36	4 19 20	4 14⊙15	4 13 19
Sept. 2	1	5	5 8 58	11 19 40	3 16 09	4 15 32	4 18⊙07	4 12 25	4 11 34
4	3	5	5 9 12	11 19 29	3 17 25	4 17 29	4 16 53	4 10 48	4 10 06
6	5	5	5 9 26	11 19 17	3 18 41	4 19 25	4 15 40	4 9 34	4 9 03
8	7	5	5 9 41	11 19 05	3 19 57	4 21 21	4 14 28	4 8 43	4 8 31
10	9	5	5 9 55	11 18 52	3 21 13	4 23 18	4 13 20	4D8 28	4 8 34
12	12	5	5 10 09	11 18 39	3 22 29	4 25 15	4 12 17	4 8 49	4 9 13
14	14	5	5 10 24	11 18 25	3 23 44	4 27 11	4 11 21	4 9 46	4 10 27
16	16	5	5 10 39	11 18 11	3 25 00	4 29 08	4 10 34	4 11 17	4 12 15
18	18	5	5 10 53	11 17 56	3 26 15	5 1 05	4 9 55	4 13 20	4 14 31
20	20	5	5 11 08	11 17 41	3 27 30	5 3 02	4 9 26	4 15 49	4 17 12
22	22	5	5 11 23	11 17 26	3 28 45	5 5 00	4 9 06	4 18 40	4 20 12
24	24	5	5 11 37	11 17 11	4 0 00	5 6 57	4 8 56	4 21 48	4 23 26
26	26	5	5 11 52	11 16 55	4 1 15	5 8 55	4D8 56	4 25 08	4 26 51
28	27	5	5 12⊙07	11 16 39	4 2 29	5 10 52	4 9 05	4 28 36	5 0 22
30	29	5	5 12 22	11 16 23	4 3 43	5 12 50	4 9 23	5 2 09	5 3 57
Oct. 2	1	6	5 12 37	11 16 8 07	4 4 58	5 14 48	4 9 50	5 5 45	5 7 33
4	4	6	5 12 52	11 15 51	4 6 12	5 16 46	4 10 25	5 9 21	5 11 09
6	6	6	5 13 06	11 15 35	4 7 26	5 18 45	4 11 07	5 12 56	5 14 43
8	8	6	5 13 21	11 15 19	4 8 40	5 20 43	4 11 57	5 16 30	5 18 16
10	10	6	5 13 36	11 15 03	4 9 53	5 22 42	4 12 53	5 20 01	5 21 46
12	12	6	5 13 51	11 14 47	4 11 07	5 24 40	4 13 55	5 23 30	5 25⊙14
14	14	6	5 14 05	11 14 31	4 12 20	5 26 39	4 15 03	5 26 56	5 28 38
16	16	6	5 14 20	11 14 16	4 13 33	5 28 38	4 16 17	6 0 20	6 2 00
18	18	6	5 14 34	11 14 01	4 14 46	6 0 37	4 17 35	6 3 40	6 5 20
20	20	6	5 14 49	11 13 47	4 15 59	6 2 36	4 18 58	6 6 58	6 8 36
22	22	6	5 15 03	11 13 32	4 17 11	6 4 35	4 20 26	6 10 14	6 11 51
24	24	6	5 15 17	11 13 19	4 18 24	6 6 35	4 21 58	6 13 27	6 15 03
26	26	6	5 15 31	11 13 06	4 19 36	6 8 34	4 23 33	6 16 33	6 18 12
28	28	6	5 15 45	11 12 53	4 20 48	6 10 34	4 25 12	6 19 47	6 21 20
30	30	6	5 15 59	11 12 41	4 22 00	6 12 34	4 26 54	6 22 53	6 24 26
Nov. 1	2	7	5 16 13	11 12 29	4 23 12	6 14 34	5 28 38	6 25 58	6 27 30
3	4	7	5 16 26	11 12 18	4 24 23	6 16 34	5 0 26	6 29 01	7 0 [illegible]
5	7	7	5 16 40	11 12 08	4 25 34	6 18 34	5 8 16	7 2 02	7 [illegible]
7	9	7	5 16 53	11 11 58	4 26 45	6 20 35	5 4 09	7 5 02	7 [illegible] 31
9	11	7	5 17 06	11 11 49	4 27 56	6 22 35	5 6 03	7 7 59	7 9 28
11	13	7	5 17 19	11 11 41	4 29 07	6 24 36	5 8 00	7 10 55	7 12 22
13	15	7	5 17 32	11 11 34	5 0 17	6 26 37	5 9 59	7 13 49	7 15 15
15	17	7	5 17 44	11 11 27	5 1 27	6 28 37	5 12 00	7 16 40	7 18 04

Longitudes of Planets

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Nov15	17	7	5	17	44	11	R11	27	5	1	27	6	28	37	5	12	00	7	16	40	7	18	04
17	19	7	5	17	56	11	11	22	5	2	37	7	0	38	5	14	02	7	19	28	7	20	51
19	20	7	5	18	08	11	11	17	5	3	47	7	2	39	5	16	06	7	22	13	7	23	33
21	22	7	5	18	20	11	11	12	5	4	57	7	4	40	5	18	12	7	24	53	7	26	11
23	24	7	5	18	32	11	11	09	5	6	06	7	6	41	5	20	19	7	27	28	7	28	42
25	26	7	5	18	43	11	11	06	5	7	15	7	8	43	5	22	27	7	29	55	8	1	05
27	28	7	5	18	54	11	11	05	5	8	23	7	10	44	5	24	36	8	2	13	8	3	17
29	1	8	5	19	05	11	11	04	5	9	32	7	12	46	5	26	47	8	4	18	8	5	15
Dec. 1	3	8	5	19	16	11	D11	04	5	10	40	7	14	47	5	28	59	8	6	08	8	6	55
3	5	8	5	19	26	11	11	04	5	11	47	7	16	49	6	1	12	8	7	31	8	8	11
5	7	8	5	19	36	11	11	06	5	12	55	7	18	51	6	3	26	8	8	39	8	8	58
7	9	8	5	19	46	11	11	08	5	14	02	7	20	53	6	5	40	8	9	07	8	R9	07
9	11	8	5	19	55	11	11	12	5	15	09	7	22	55	6	7	56	8	8	57	8	8	35
11	13	8	5	20	04	11	11	16	5	16	15	7	24	56	6	10	12	8	8	01	8	7	16
13	15	8	5	20	13	11	11	21	5	17	21	7	26	58	6	12	29	8	6	21	8	5	16
15	17	8	5	20	21	11	11	26	5	18	27	7	29	00	6	14	47	8	4	03	8	2	43
17	19	8	5	20	29	11	11	33	5	19	32	8	1	02	6	17	06	8	1	21	7	29	58
19	21	8	5	20	37	11	11	40	5	20	37	8	3	05	6	19	25	7	28	38	7	27	22
21	22	8	5	20	44	11	11	48	5	21	42	8	5	07	6	21	44	7	26	13	7	25	13
23	24	8	5	20	51	11	11	57	5	22	46	8	7	09	6	24	05	7	24	23	7	23	44
25	26	8	5	20	57	11	12	06	5	23	49	8	9	11	6	26	26	7	23	16	7	22	58
27	29	8	5	21	04	11	12	17	5	24	53	8	11	14	6	28	47	7	22	50	7	D22	52
29	1	9	5	21	09	11	12	28	5	25	55	8	13	16	7	1	08	7	23	04	7	23	23
31	3	9	5	21	15	11	12	39	5	26	58	8	15	18	7	3	31	7	23	49	7	24	22
Jan. 2	6	9	5	21	20	11	12	52	5	27	59	8	17	21	7	5	53	7	25	02	7	25	47

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊			Mean ☊			♅			♆			♇			Ayanam		
		s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	°	′	°
January	1	10	28	40	10	29	37	2	R14	10	5	26	15	3	R26	18	23	10	30
February	1	10	26	16	10	27	58	2	12	57	5	R26	20	3	25	36	23	10	35
March	1	10	25	48	10	26	29	2	12	18	5	25	57	3	24	56	23	10	39
April	1	10	25	49	10	24	50	2	D12	22	5	25	12	3	24	25	23	10	42
May	1	10	24	41	10	23	15	2	13	19	5	24	24	3	D24	14	23	10	46
June	1	10	21	49	10	21	37	2	14	40	5	23	47	3	24	29	23	10	51
July	1	10	18	46	11	20	1	2	16	25	5	D23	35	3	25	7	23	10	57
August	1	10	16	59	11	18	23	2	18	15	5	23	52	3	25	57	23	11	3
September	1	10	16	45	11	16	44	2	19	45	5	24	37	3	26	56	23	11	7
October	1	10	16	39	11	15	8	2	20	38	5	25	38	3	27	45	23	11	11
November	1	10	15	3	11	13	30	2	R20	45	5	26	47	3	28	15	23	11	14
December	1	10	11	49	11	11	55	2	20	5	5	27	45	3	R28	21	23	11	19
January	1	10	8	40	11	10	16	2	18	52	5	28	23	3	28	1	23	11	25

Combustion or Heliacal Sctting of Planets

Saturn : From Sept. 15 to Oct. 14.

Jupiter : From Mar. 1 to Mar. 23.

Mars : From Mar. 26 to July 14.

Venus : — —

Mercury : Up to Jan. 7 then from Feb. 25 to Mar. 24, Apr. 18 to May 3, June 16 to July 6, Aug. 25, to Sept. 7, Sept. 29 to Nov. 2, Dec. 11 to Dec. 23.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	*m*	s	°	′		*h*	*m*	s	°	′
Mercury	—	—			—		Jan. 12,	21	3	8	8	44
	Apr. 14,	23	21	0	15	23	May 8,	17	20	0	5	10
	Aug. 17,	19	23	4	21	58	Sept. 9,	25	42	4	8	27
	Dec. 7,	17	16	8	9	9	Dec. 27,	12	16	7	22	50
Venus	Aug. 13,	13	6	4	25	9	Sept. 25,	6	28	4	8	55
Mars	—	—			—		—	—			—	
Jupiter	Aug. 4	11	30	11	21	0	Nov. 30,	10	18	11	11	4
Saturn	Jan. 11,	27	46	5	9	11	May 28,	28	36	5	2	22
Uranus	—	—			—		Mar. 14,	15	50	2	12	13
	Oct. 20,	22	6	2	10	49	—	—			—	
Neptune	Jan. 20,	19	54	5	26	22	June 28,	24	6	5	23	34
Pluto	—	—			—		Apr. 29,	24	0	3	24	14
	Nov. 23,	17	0	3	28	22	—	—			—	

New-Moon and Full-Moon

New-Moon	*d*	*h*	*m*	Lunar months begin		Full-Moon	*d*	*h*	*m*	Hindi months begin	
Jan.	7	25	40	Pauṣa	Sukla	Jan.	23	10	17	Māgha	Vadi
Feb.	6	13	24	Māgha	,,	Feb.	21	26	42	Phālguna	,,
Mar.	7	26	20	Phālguna	,,	Mar.	23	16	20	Caitra	,,
Apr.	6	16	22	Caītra	,,	Apr.	21	27	0	Vaiśakha	,,
May	6	7	5	Vaiśākha	,,	May	21	11	15	Jyaiṣṭha	,,
June	4	22	10	Jyaiṣṭha	,,	June	19	18	6	Āṣāḍha	,,
July	4	13	18	Āṣāḍha	,,	July	18	24	47	Śrāvaṇa	,,
Aug.	2	28	9	Śravana	,,	Aug.	17	8	29	Bhādra	,,
Sept.	1	18	19	Bhādra	,,	Sept.	15	18	8	Āśvina	,,
Oct.	1	7	27	Āśvina	,,	Oct.	15	6	21	Kārtika	,,
Oct.	30	19	24	Kārtika	,,	Nov.	13	21	22	Mārga.	,,
Nov.	29	6	30	Agrahā	,,	Dec.	13	15	0	Pauṣa	,,
Dec.	28	17	13	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	14	9	30	Karkaṭa	on	July	16	18	22
Kumbha	on	Feb.	12	22	29	Siṁha	on	Aug.	16	26	49
Mina	on	Mar.	14	19	21	Kanyā	on	Sept.	16	26	44
Meṣa	on	Apr.	13	27	52	Tulā	on	Oct.	17	14	38
Vṛṣa	on	May	14	24	46	Vṛścika	on	Nov.	16	14	21
Mithuna	on	June	15	7	26	Dhanus	on	Dec.	15	28	56

Śaka era 1873-74, Saṁvat 2008-09 (Mar. 26, Oct. 19), B. S. 1358-59 (Apr. 14), Kollam era 1127-28 (Aug. 16), 26 Nandana (Mar. 26, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (চ ☽ ট) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec.30	14 9	9 5 48	9 20 50	10 5 30	10 19 46	11 3 36	11 17 0	0 0 2
Jan. 6	21 9	0 12 45	0 25 13	1 7 28	1 19 34	2 1 34	2 13 28	2 25 19
13	28 9	3 7 9	3 18 59	4 0 51	4 12 48	4 24 53	5 7 10	5 19 42
20	6 10	6 2 35	6 15 51	6 29 34	7 13 44	7 28 20	8 13 18	8 28 29
27	13 10	9 13 44	9 28 52	10 13 44	10 28 14	11 12 18	11 25 54	0 9 4
Feb. 3	20 10	0 21 50	1 4 17	1 16 29	1 28 30	2 10 24	2 22 14	3 4 3
10	27 10	3 15 54	3 27 48	4 9 48	4 21 56	5 4 13	5 16 42	5 29 25
17	4 11	6 12 23	6 25 40	7 9 16	7 23 13	8 7 31	8 22 7	9 6 56
24	11 11	9 21 58	10 6 48	10 21 35	11 6 06	11 20 15	0 3 59	0 17 17
Mar. 2	18 11	1 0 11	1 12 43	1 24 57	2 6 58	2 18 51	3 0 39	3 12 28
9	25 11	3 24 22	4 6 23	4 18 33	5 0 55	5 13 31	5 26 19	6 9 21
16	3 12	6 22 37	7 6 6	7 19 48	8 3 42	8 17 48	9 2 4	9 16 29
23	10 12	10 0 58	10 15 29	10 29 55	11 14 10	11 28 10	0 11 51	0 25 9
30	17 12	1 8 5	1 20 40	2 2 57	2 14 59	2 26 52	3 8 42	3 20 32
Apr. 6	24 12	4 2 28	4 14 34	4 26 53	5 9 30	5 22 23	6 5 34	6 19 2
13	31 12	7 2 42	7 16 34	8 0 33	8 14 37	8 28 44	9 12 52	9 27 0
20	7 1	10 11 7	10 25 11	11 9 10	11 23 1	0 6 40	0 20 5	1 3 13
27	14 1	1 16 2	1 28 34	2 10 49	2 22 51	3 4 44	3 16 33	3 28 23
May 4	21 1	4 10 20	4 22 28	5 4 53	5 17 39	6 0 46	6 14 16	6 28 6
11	28 1	7 12 13	7 26 31	8 10 55	8 25 19	9 9 38	9 23 51	10 7 55
18	4 2	10 21 50	11 5 36	11 19 12	0 2 39	0 15 54	0 28 58	1 11 48
25	11 2	1 24 23	2 6 45	2 18 54	3 0 52	3 12 43	3 24 31	4 6 20
June 1	18 2	4 18 16	5 0 24	5 12 50	5 25 38	6 8 52	6 22 31	7 6 56
8	25 2	7 21 02	8 5 43	8 20 31	9 5 18	9 19 58	10 4 25	10 18 36
15	1 3	11 2 31	11 16 10	11 29 33	0 12 42	0 25 38	1 8 21	1 20 52
22	8 3	2 3 12	2 15 22	2 27 22	3 9 15	3 21 3	4 2 49	4 14 38
29	15 3	4 26 34	5 8 41	5 21 6	6 3 52	6 17 3	7 0 43	7 14 50
July 6	22 3	7 29 23	8 14 15	8 29 18	9 14 24	9 29 24	10 14 9	10 28 35
13	29 3	11 12 40	11 26 21	0 9 41	0 22 42	1 5 26	1 17 54	2 0 11
20	4 4	2 12 18	2 24 16	3 6 9	3 17 57	3 29 44	4 11 31	4 23 22
27	11 4	5 5 21	5 17 30	5 29 55	6 12 39	6 25 46	7 9 18	7 23 18
Aug. 3	18 4	8 7 45	8 22 33	9 7 38	9 22 50	10 8 1	10 23 0	11 7 40
10	25 4	11 21 57	0 5 48	0 19 13	1 2 14	1 14 53	1 27 15	2 9 23
17	1 5	2 21 21	3 3 12	3 15 00	3 26 47	4 8 35	4 20 28	5 2 26
24	8 5	5 14 33	5 26 50	6 9 20	6 22 7	7 5 12	7 18 39	8 2 28
31	15 5	8 16 40	9 1 14	9 16 5	10 1 8	10 16 15	11 1 15	11 16 2
Sept. 7	22 5	0 0 27	0 14 27	0 27 59	1 11 4	1 23 45	2 6 5	2 18 11
14	29 5	3 0 5	3 11 53	3 23 40	4 5 28	4 17 22	4 29 22	5 11 32
21	5 6	5 23 53	6 6 25	6 19 10	7 2 8	7 15 20	7 28 46	8 12 29
28	12 6	8 26 29	9 10 45	9 25 15	10 9 57	10 24 45	11 9 31	11 24 9
Oct. 5	19 6	0 8 31	0 22 32	1 6 6	1 19 15	2 1 59	2 14 22	2 26 27
12	26 6	3 8 21	3 20 10	4 1 57	4 13 48	4 25 47	5 7 57	5 20 21
19	2 7	6 2 59	6 15 51	6 28 57	7 12 15	7 25 44	8 9 23	8 23 11
26	9 7	9 7 7	9 21 11	10 5 23	10 19 41	11 4 4	11 18 25	0 2 41
Nov. 2	16 7	0 16 46	1 0 34	1 14 2	1 27 7	2 9 50	2 22 13	3 4 20
9	23 7	3 16 15	3 28 4	4 9 51	4 21 44	5 3 47	5 16 3	5 28 37
16	30 7	6 11 30	6 24 42	7 8 11	7 21 55	8 5 49	8 19 51	9 3 56
23	7 8	9 18 3	10 2 9	10 16 14	11 0 17	11 14 17	11 28 12	0 12 1
30	14 8	0 25 59	1 9 5	1 22 15	2 5 8	2 17 43	3 0 2	3 12 7
Dec. 7	21 8	3 24 2	4 5 50	4 17 38	4 29 30	5 11 33	5 23 50	6 6 27
14	28 8	6 19 26	7 2 49	7 16 35	8 0 41	8 15 1	8 29 30	9 14 3
21	6 9	9 28 32	10 12 55	10 27 8	11 11 10	11 25 0	0 8 37	0 22 3
28	13 9	1 5 16	1 18 16	2 1 4	2 13 38	2 26 0	3 8 10	3 20 10
Jan.-4	20 9	4 2 2	4 13 50	4 25 37	5 7 28	5 19 30	6 1 45	6 14 18

Ayanamsa on 1st Jan : 23° 11′ 25″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	5	9	5	21	17	11	12	46	5	27	28	8	16	19	7	4	42	7	24	22	7	25	02
3	7	9	5	21	22	11	12	58	5	28	30	8	18	22	7	7	05	7	25	47	7	26	36
5	9	9	5	21	26	11	13	12	5	29	31	8	20	24	7	9	28	7	27	30	7	28	28
7	11	9	5	21	30	11	13	26	6	0	31	8	22	26	7	11	52	7	29	29	8	0	33
9	13	9	5	21	34	11	13	41	6	1	31	8	24	29	7	14	15	8	1	39	8	2	48
11	14	9	5	21	37	11	13	56	6	2	30	8	26	31	7	16	39	8	4	00	8	5	13
13	16	9	5	21	40	11	14	12	6	3	28	8	28	33	7	19	03	8	6	28	8	7	44
15	18	9	5	21	42	11	14	29	6	4	25	9	0	35	7	21	28	8	9	02	8	10	21
17	20	9	5	21	44	11	14	46	6	5	22	9	2	37	7	23	53	8	11	42	8	13	03
19	22	9	5	21	45	11	15	03	6	6	19	9	4	40	7	26	18	8	14	26	8	15	50
21	24	9	5	21	46	11	15	22	6	7	14	9	6	42	7	28	43	8	17	14	8	18	39
23	26	9	5	R21	47	11	15	40	6	8	09	9	8	44	8	1	09	8	20	06	8	21	33
25	28	9	5	21	47	11	16	00	6	9	04	9	10	46	8	3	35	8	23	00	8	24	29
27	1	10	5	21	47	11	16	20	6	9	57	9	12	48	8	6	00	8	25	58	8	27	28
29	3	10	5	21	46	11	16	40	6	10	49	9	14	50	8	8	27	8	28	59	9	0	30
31	5	10	5	21	45	11	17	01	6	11	40	9	16	52	8	10	53	9	2	02	9	3	35
Feb. 2	7	10	5	21	43	11	17	21	6	12	30	9	18	54	8	13	19	9	5	09	9	6	43
4	9	10	5	21	41	11	17	44	6	13	19	9	20	56	8	15	46	9	8	18	9	9	53
6	11	10	5	21	39	11	18	06	6	14	08	9	22	57	8	18	12	9	11	s30	9	13	07
8	13	10	5	21	36	11	18	23	6	14	54	9	24	59	8	20	39	9	14	45	9	16	23
10	15	10	5	21	33	11	18	51	6	15	40	9	27	00	8	23	06	9	18	03	9	19	43
12	16	10	5	21	29	11	19	14	6	16	25	9	29	02	8	25	32	9	21	24	9	23	06
14	18	10	5	21	25	11	19	38	6	17	08	10	1	03	8	27	59	9	24	49	9	26	32
16	20	10	5	21	21	11	20	02	6	17	50	10	3	04	9	0	26	9	28	17	10	0	02
18	22	10	5	21	16	11	20	26	6	18	31	10	5	06	9	2	54	10	1	48	10	3	36
20	24	10	5	21	11	11	20	51	6	19	10	10	7	06	9	5	21	10	5	24	10	7	12
22	27	10	5	21	05	11	21	16	6	19	48	10	9	07	9	7	48	10	9	☌02	10	10	53
24	29	10	5	21	00	11	21	41	6	20	24	10	11	08	9	10	16	10	12	44	10	14	37
26	1	11	5	20	53	11	22	07	6	20	58	10	13	09	9	12	43	10	16	30	10	18	23
28	3	11	5	20	47	11	22	33	6	21	30	10	15	09	9	15	11	10	20	17	10	22	12
Mar. 1	6	11	5	20	40	11	22	59	6	22	01	10	17	10	9	17	38	10	24	07	10	26	02
3	7	11	5	20	33	11	23	25	6	22	30	10	19	10	9	20	06	10	27	57	10	29	51
5	9	11	5	20	26	11	23	52	6	22	57	10	21	11	9	22	33	11	1	45	11	3	r38
7	11	11	5	20	18	11	24	18	6	23	21	10	23	11	9	25	01	11	5	30	11	7	20
9	13	11	5	20	10	11	24	45	6	23	44	10	25	11	9	27	28	11	9	09	11	10	54
11	15	11	5	20	02	11	25	12	6	24	05	10	27	10	9	29	56	11	12	37	11	14	16
13	17	11	5	19	54	11	25	40	6	24	23	10	29	10	10	2	24	11	15	51	11	17	22
15	19	11	5	19	45	11	26	07	6	24	38	11	1	10	10	4	51	11	18	48	11	20	08
17	21	11	5	19	37	11	26	35	6	24	51	11	3	09	10	7	19	11	21	23	11	22	31
19	23	11	5	19	28	11	27	03	6	25	02	11	5	08	10	9	47	11	23	32	11	24	26
21	25	11	5	19	19	11	27	31	6	25	10	11	7	08	10	12	14	11	25	13	11	25	52
23	27	11	5	19	10	11	27	59	6	25	15	11	9	07	10	14	42	11	26	24	11	26	48
25	30	11	5	19	01	11	28	27	6	R25	16	11	11	08	10	17	10	11	27	04	11	27	12
27	2	12	5	18	51	11	28	56	6	25	16	11	13	05	10	19	38	11	R27	13	11	27	06
29	4	12	5	18	42	11	29	24	6	25	12	11	15	03	10	22	05	11	26	s52	11	26	31
31	6	12	5	18	33	11	29	53	6	25	05	11	17	02	10	24	33	11	26	05	11	25	32
Apr. 2	8	12	5	18	23	0	0	21	6	24	55	11	19	00	10	27	01	11	24	55	11	24	14
4	9	12	5	18	14	0	0	50	6	24	42	11	20	59	10	29	28	11	23	30	11	22	☌44
6	11	12	5	18	05	0	1	s19	6	24	26	11	22	57	11	1	56	11	21	57	11	21	09
8	13	12	5	17	55	0	1	48	6	24	07	11	24	55	11	4	24	11	20	22	11	19	36
10	15	12	5	17	46	0	2	17	6	23	46	11	26	52	11	6	51	11	18	53	11	18	13
12	17	12	5	17	37	0	2	45	6	23	21	11	28	50	11	9	19	11	17	r36	11	17	03
14	19	12	5	17	28	0	3	14	6	22	53	0	0	48	11	11	46	11	16	35	11	16	12
16	21	12	5	17	19	0	3	43	6	22	22	0	2	45	11	14	14	11	15	53	11	15	40

Ayanamsa on 1st Jan. : 23° 11′ 25″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.16	21	12	5 17 19	0 3s43	6R22 22	0 2 45	11 14 14	11R15 53	11 15 40
18	24	12	5 17 10	0 4⊙12	6 21 49	0 4 42	11 16 42	11 15 32	11D15 29
20	26	12	5 17 02	0 4 41	6 21 14	0 6 40	11 19 09	11 15 31	11 15 39
22	28	12	5 16 53	0 5 10	6 20 36	0 8 37	11 21 37	11 15 51	11 16 08
24	30	12	5 16 45	0 5 39	6 19 57	0 10 34	11 24 04	11 16 29	11 16 55
26	2	1	5 16 37	0 6 07	6 19 15	0 12 30	11 26 32	11 17 26	11 18 00
28	4	1	5 16 29	0 6 36	6 18 32	0 14 27	11 28 59	11 18 38	11 19 20
30	6	1	5 16 22	0 7r05	6 17 49	0 16 24	0 1 27	11 20 06	11 20 55
May 2	8	1	5 16 15	0 7 34	6 17 05	0 18 20	0 3 54	11 21 47	11 22 43
4	10	1	5 16 08	0 8 02	6 16 20	0 20 17	0 6 22	11 23 42	11 24 43
6	12	1	5 16 01	0 8 31	6 15 36	0 22 13	0 8 49	11 25 48	11 26 55
8	14	1	5 15 54	0 8 59	6 14 52	0 24 09	0 11 16	11 28 05	11 29 17
10	16	1	5 15 48	0 9 27	6 14 09	0 26 05	0 13 44	0 0 32	0 1 49
12	18	1	5 15 43	0 9 55	6 13 28	0 28 01	0 16 11	0 3 09	0 4 31
14	20	1	5 15 37	0 10 23	6 12 47	0 29 56	0 18 38	0 5 56	0 7 23
16	22	1	5 15 32	0 10 51	6 12 09	1 1 52	0 21 06	0 8 52	0 10 23
18	25	1	5 15 27	0 11 19	6 11 32	1 3 48	0 23 33	0 11 56	0 13 32
20	27	1	5 15 23	0 11 47	6 10 58	1 5 43	0 26 00	0 15 10	0 16 50
22	29	1	5 15 19	0 12 14	6 10 26	1 7 39	0 28 28	0 18 32	0 20 17
24	1	2	5 15 15	0 12 41	6 9 57	1 9 34	1 0 55	0 22 03	0 23 52
26	3	2	5 15 12	0 13 08	6 9 31	1 11 29	1 3 22	0 25 43	0 27 37
28	4	2	5 15 09	0 13 36	6 9 08	1 13 24	1 5 50	0 29 32	1 1 29
30	6	2	5 15 06	0 14 02	6 8 49	1 15 20	1 8 17	1 3s29	1 5 30
June 1	8	2	5 15 04	0 14 29	6 8 32	1 17 15	1 10 44	1 7 33	1 9 38
3	10	2	5 15 03	0 14 55	6 8 19	1 19 09	1 13s12	1 11 45	1 13 53
5	12	2	5 15 01	0 15 21	6 8 09	1 21 04	1 15 39	1 16 02	1 18 13
7	14	2	5 15 00	0 15 47	6 8 02	1 22 59	1 18 06	1 20 24	1 22 36
9	16	2	5 15 00	0 16 12	6 7 59	1 24 54	1 20 33	1 24⊙48	1 27 00
11	19	2	5D15 00	0 16 38	6D7 59	1 26 48	1 23 01	1 29 12	2 1 23
13	21	2	5 15 00	0 17 03	6 8 02	1 28 43	1 25 28	2 3 33	2 5 43
15	23	2	5 15 01	0 17 27	6 8 07	2 0 38	1 27 55	2 7 51	2 9 58
17	25	2	5 15 02	0 17 52	6 8 17	2 2 32	2 0 23	2 12 03	2 14 07
19	27	2	5 15 03	0 18 16	6 8 29	2 4 27	2 2 50	2 16 08	2 18r08
21	29	2	5 15 05	0 18 40	6 8 44	2 6 21	2 5 17	2 20 05	2 22 01
23	1	3	5 15 08	0 19 03	6 9 02	2 8 16	2 7 45	2 23 54	2 25 46
25	3	3	5 15 10	0 19 27	6 9 23	2 10 10	2 10⊙12	2 27 35	2 29 22
27	5	3	5 15 13	0 19 49	6 9 46	2 12 05	2 12 40	3 1 06	3 2 49
29	7	3	5 15 17	0 20 12	6 10 11	2 13 59	2 15 07	3 4 29	3 6 07
July 1	8	3	5 15 21	0 20 34	6 10 40	2 15 54	2 17 35	3 7 43	3 9 16
3	10	3	5 15 25	0 20 55	6 11 11	2 17 48	2 20 02	3 10 47	3 12 16
5	13	3	5 15 30	0 21 17	6 11 43	2 19 42	2 22 30	3 13 43	3 15 07
7	15	3	5 15 35	0 21 38	6 12 19	2 21 37	2 24 57	3 16 29	3 17 48
9	17	3	5 15 40	0 21 58	6 12 56	2 23 31	2 27 25	3 19 6	3 20 20
11	20	3	5 15 46	0 22 18	6 13 36	2 25 26	2 29 52	3 21 32	3 22 42
13	22	3	5 15 52	0 22 38	6 14 17	2 27 20	3 2 20	3 23 48	3 24 52
15	24	3	5 15 58	0 22 57	6 15 01	2 29 14	3 4 48	3 25 53	3 26 51
17	26	3	5 16 05	0 23 15	6 15 46	3 1 09	3 7r15	3 27 47	3 28 38
19	28	3	5 16 12	0 23 33	6 16 32	3 3 03	3 9 43	3 29 27	4 0 12
21	30	3	5 16 20	0 23 51	6 17 21	3 4 58	3 12 11	4 0 53	4 1 31
23	1	4	5 16 27	0 24 08	6 18 11	3 6 53	3 14 39	4 2 05	4 2 35
25	3	4	5 16 36	0 24 25	6 19 03	3 8 47	3 17 06	4 3 00	4 3 21
27	5	4	5 16 44	0 24 41	6 19 56	3 10 42	3 19 34	4 3 38	4 3 49
29	7	4	5 16 53	0 24 56	6 20 51	3 12 37	3 22 02	4 3 56	4R 3 58
31	9	4	5 17 01	0 25 11	6 21 47	3 14 31	3 24 30	4 3 55	4 3 46

Ayanamsa on 1st Jan.: 23° 11′ 25″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			શ ♄ નિ	ગુ ♃ રુ	મં ♂ ગ	ર ☉ વિ	શુ ♀ ક	બુ ☿ ધ	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
July 31	9	4	5 17 01	0 25 11	6 21 47	3 14 31	3 24 30	4R 3 55	4 3 46
Aug. 2	11	4	5 17 11	0 25 25	6 22 45	3 16 26	3 26 58	4 3 32	4 3 14
4	13	4	5 17 21	0 25 39	6 23 44	3 18 21	3 29 25	4 2 50	4 2 21
6	16	4	5 17 31	0 25 52	6 24 44	3 20 16	4 1 53	4 1s48	4 1 10
8	18	4	5 17 41	0 26 04	6 25 45	3 22 11	4 4 21	4 0 29	3 29 45
10	20	4	5 17 51	0 26 16	6 26 47	3 24 06	4 6 49	3 28 58	3 28 09
12	22	4	5 18 02	0 26 27	6 27 51	3 26 01	4 9 17	3 27⊙20	3 26 31
14	24	4	5 18 13	0 26 38	6 28 55	3 27 56	4 11 45	3 25 43	3 24 57
16	26	4	5 18 24	0 26 47	7 0 01	3 29 51	4 14 15	3 24 14	3 23 35
18	28	4	5 18 36	0 26 56	7 1 08	4 1 47	4 16 40	3 23 00	3 22 31
20	30	4	5 18 47	0 27 05	7 2 16	4 3 42	4 19 08	3 22 08	3 21r52
22	2	5	5 18 59	0 27 13	7 3 24	4 5 38	4 21 36	3D21 43	3 21 42
24	4	5	5 19 11	0 27 19	7 4 34	4 7 34	4 24 04	3 21 48	3 22 02
26	5	5	5 19 23	0 27 26	7 5 44	4 9 29	4 26 32	3 22 24	3 22 54
28	7	5	5 19 36	0 27 31	7 6 56	4 11 25	4 29 00	3 23 32	3 24 18
30	10	5	5 19 49	0 27 36	7 8 08	4 13 21	5 1 28	3 25 11	3 26 11
Sept. 1	12	5	5 20 01	0 27 39	7 9 21	4 15 17	5 3 55	3 27 18	3 28 31
3	14	5	5 20 14	0 27 43	7 10 35	4 17 14	5 6 23	3 29 51	4 1 16
5	17	5	5 20 28	0 27 45	7 11 49	4 19 10	5 8 51	4 2 45	4 4 20
7	19	5	5 20 41	0 27 46	7 13 04	4 21 06	5 11 19	4 5 58	4 7 40
9	21	5	5 20 54	0R27 47	7 14 20	4 23 03	5 13 46	4 9 24	4 11 11
11	23	5	5 21 08	0 27 47	7 15 37	4 24 59	5 16 14	4 13 00	4 14s15
13	25	5	5 21 22	0 27 46	7 16 54	4 26 56	5 18 42	4 16 42	4 18 35
15	27	5	5 21 36	0 27 45	7 18 12	4 28 53	5 21 09	4 20 28	4 22 21
17	28	5	5 21 50	0 27 42	7 19 31	5 0 50	5 23 37	4 24 14	4 26 07
19	30	5	5 22 04	0 27 39	7 20 50	5 2 47	5 26 04	4 27 59	4 29 51
21	2	6	5 22 18	0 27 35	7 22 10	5 4 45	5 28 32	5 1 43	5 3 33
23	4	6	5 22 32	0 27 30	7 23 30	5 6 42	6 1 00	5 5 23	5 7⊙13
25	6	6	5 22 47	0 27 24	7 24 51	5 8 40	6 3 27	5 9 01	5 10 49
27	8	6	5 23s01	0 27 18	7 26 13	5 10 37	6 5 54	5 12 35	5 14 21
29	10	6	5 23 15	0 27 10	7 27 35	5 12 35	6 8 22	5 16 06	5 17 49
Oct. 1	13	6	5 23 30	0 27 02	7 28 57	5 14 33	6 10 49	5 19 32	5 21 15
3	15	6	5 23 45	0 26 54	8 0 20	5 16 31	6 13 17	5 22 58	5 24 36
5	17	6	5 23 59	0 26 44	8 1 44	5 18 29	6 15 44	5 26 16	5 27 55
7	19	6	5 24 14	0 26 34	8 3 08	5 20 28	6 18 11	5 29 33	6 1 10
9	21	6	5 24 28	0 26 23	8 4 32	5 22 26	6 20 38	6 2 46	6 4 22
11	23	6	5 24⊙43	0 26 12	8 5 57	5 24 25	6 23 05	6 5 57	6 7r31
13	25	6	5 24 58	0 26 00	8 7 22	5 26 23	6 25 32	6 9 05	6 10 38
15	27	6	5 25 12	0 25 47	8 8 48	5 28 22	6 27 59	6 12 10	6 13 42
17	29	6	5 25 27	0 25 34	8 10 14	6 0 21	7 0 26	6 15 13	6 16 43
19	1	7	5 25 42	0 25 21	8 11 41	6 2 21	7 2 53	6 18 12	6 19 41
21	3	7	5 25 56	0 25 06	8 13 07	6 4 20	7 5 20	6 21 10	6 22 37
23	5	7	5 26 11	0 24 52	8 14 34	6 6 20	7 7 46	6 24 04	6 25 30
25	7	7	5 26 25	0 24 37	8 16 02	6 8 19	7 10 13	6 26 56	6 28 20
27	9	7	5 26r40	0 24 22	8 17 30	6 10 19	7 12 40	6 29 44	7 1 07
29	11	7	5 26 54	0 24 06	8 18 58	6 12 19	7 15 06	7 2 30	7 3 51
31	13	7	5 27 08	0 23 50	8 20 27	6 14 19	7 17 33	7 5 11	7 6 30
Nov. 2	16	7	5 27 23	0 23 34	8 21 55	6 16 19	7 19 59	7 7 48	7 9 05
4	18	7	5 27 37	0 23 18	8 23 24	6 18 19	7 22 25	7 10 20	7 11 33
6	20	7	5 27 51	0 23 02	8 24 54	6 20 19	7 24 51	7 12 45	7 13 55
8	22	7	5 28 05	0 22§45	8 26 23	6 22 20	7 27 17	7 15 02	7 16 07
10	23	7	5 28 18	0 22 29	8 27 53	6 24 20	7 29 43	7 17 10	7 18 09
12	25	7	5 28 32	0 22 13	8 29 23	6 26 21	8 2 09	7 19 04	7 19 56
14	27	7	5 28 45	0 21 57	9 0 53	6 28 22	8 4 35	7 20 43	7 21 26

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	गु ♃ बृ	म ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	27 7	5 28 45	0R21 57	9 0 53	6 28 22	8 4 35	7 20 43	7 21 26
16	29 7	5 28 59	0 21 41	9 2 24	7 0 23	8 7 00	7 22 02	7 22 33
18	1 8	5 29 12	0 21 25	9 3 54	7 2 21	8 9 26	7 22 56	7 23 12
20	3 8	5 29 25	0 21 09	9 5 25	7 4 25	8 11 51	7 23 19	7R23 16
22	5 8	5 29 38	0 20 54	9 6 56	7 6 26	8 14 16	7 23 04	7 22 42
24	7 8	5 29 50	0 20 39	9 8 27	7 8 27	8 16 41	7 22 09	7 21 a25
26	10 8	6 0 03	0 20 24	9 9 59	7 10 29	8 19 06	7 20 30	7 19 26
28	12 8	6 0 15	0 20 10	9 11 30	7 12 30	8 21 31	7 18 15	7 16 57
30	14 8	6 0 27	0 19 56	9 13 02	7 14 32	8 23 55	7 15☉35	7 14 12
Dec. 2	16 8	6 0 39	0 19 43	9 14 34	7 16 33	8 26 19	7 12 51	7 11 35
4	18 8	6 0 50	0 19 31	9 16 06	7 18 35	8 28 44	7 10 25	7 9 25
6	20 8	6 1 02	0 19 19	9 17 38	7 20 37	9 1 07	7 8r34	7 7 55
8	22 8	6 1 13	0 19 07	9 19 10	7 22 39	9 3 30	7 7 27	7 7 10
10	23 8	6 1 23	0 18 57	9 20 42	7 24 41	9 5 53	7 7 04	7D 7 08
12	25 8	6 1 34	0 18 47	9 22 14	7 26 43	9 8 16	7 7 22	7 7 45
14	27 8	6 1 44	0 18 37	9 23 46	7 28 45	9 10 38	7 8 16	7 8 53
16	29 8	6 1 54	0 18 29	9 25 19	8 0 47	9 13 00	7 9 37	7 10 27
18	2 9	6 2 03	0 18 21	9 26 51	8 2 49	9 15 22	7 11 21	7 12 20
20	4 9	6 2 13	0 18 14	9 28 24	8 4 51	9 17 44	7 13 23	7 14 28
22	6 9	6 2 22	0 18 07	9 29 56	8 6 53	9 20 04	7 15 37	7 16 49
24	8 9	6 2 30	0 18 02	10 1 29	8 8 56	9 22 25	7 18 02	7 19 18
26	10 9	6 2 39	0 17 57	10 3 01	8 10 58	9 24 45	7 20 35	7 21 54
28	12 9	6 2 47	0 17 53	10 4 34	8 13 00	9 27 04	7 23 14	7 24 35
30	14 9	6 2 54	0 17 50	10 6 07	8 15 03	9 29 23	7 25 58	7 27 21
Jan. 1	16 9	6 3 02	0 17 48	10 7 39	8 17 05	10 1 42	7 28 46	8 0 11

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	10 8 40	10 10 16	2R 18 52	5 28 23	3R 28 1	23 11 25
February	1	10 7 28	10 8 38	2 17 36	5R 28 30	3 27 21	23 11 31
March	1	10 7 31	10 7 5	2 16 50	5 28 9	3 26 39	23 11 35
April	1	10 6 55	10 5 27	2D 16 48	5 27 24	3 26 4	23 11 38
May	1	10 4 38	10 3 52	2 17 33	5 26 36	3D 25 53	23 11 42
June	1	10 1 19	10 2 16	2 18 58	5 25 57	3 26 7	23 11 47
July	1	9 29 1	10 0 39	2 20 42	5D 25 44	3 26 43	23 11 52
August	1	9 28 21	9 28 59	2 22 32	5 26 0	3 27 36	23 11 58
September	1	9 28 24	9 27 20	2 24 7	5 26 44	3 28 33	23 12 2
October	1	9 27 32	9 25 45	2 25 5	5 47 44	3 29 23	23 12 5
November	1	9 24 45	9 24 6	2R 25 18	5 28 53	3 29 54	23 12 9
December	1	9 21 22	9 22 31	2 24 44	5 29 52	4R 0 2	23 12 14
January	1	9 19 20	9 20 52	2 23 33	6 0 31	3 29 45	23 12 20

Combustion or Heliacal Setting of Planets

Saturn : From Sept. 27 to Oct. 27
Jupiter : From Apr. 6 to Apr. 30
Mars : — —
Venus : From June 3 to July 16
Mercury : From Feb. 6 to Mar. 6, Mar. 29 to Apr. 12, May 30 to June 20. Aug. 6 to Aug. 21, Sept. 12 to Oct. 12, Nov 25 to Dec. 6.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	*m*	s	°	′			*h*	*m*	s	°	′
Mercury	Mar.	26,	19	20	11	27	13	Apr.	19,	7	1	11	15	29
	July	29,	25	50	4	3	58	Aug.	22,	22	12	3	21	40
	Nov.	20,	11	53	7	23	19	Dec.	10,	7	8	7	7	4
Venus	—		—		—			—		—		—		
Mars	Mar.	25,	16	30	6	25	17	June	10,	8	24	6	7	58
Jupiter	Sept.	9,	24	6	0	27	48	—		—		—		
Saturn	Jan.	24,	20	16	5	21	47	June	10,	19	30	5	15	0
Uranus	—		—		—			Mar.	18,	9	6	2	16	48
	Oct.	25,	16	58	2	25	20	—		—		—		
Neptune	Jan.	23,	15	22	5	28	31	June	30,	8	42	5	25	44
Pluto	—		—		—			May	1,	7	46	3	25	53
	Nov.	24,	20	51	4	0	3	—		—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	*h*	*m*				*d*	*h*	*m*		
						Jan.	12	10	25	Māgha	Vadi
Jan.	26	27	56	Māgha	Sukla	Feb.	11	5	58	Phālguna	,,
Feb.	25	14	46	Phālguna	,,	Mar.	11	23	44	Caitra	,,
Mar.	25	25	42	Caitra	,,	Apr.	10	14	23	Vaiśākha	,,
Apr.	24	12	57	Vaiśākha	,,	May	9	25	46	Jyaiṣṭha	,,
May	23	24	58	Jyaiṣṭha	,,	June	8	10	37	Āṣāḍha	,,
June	22	14	15	Āṣāḍha	,,	July	7	18	3	Śrāvaṇa	,,
July	31	29	0	Śrāvaṇa	,,	Aug.	5	25	10	Bhādra	,,
Aug.	20	20	50	Bhādra	,,	Sept.	4	8	49	Āśvina	,,
Sept.	19	12	52	Āśvina	,,	Oct.	3	17	45	Kārtika	,,
Oct.	18	28	12	Kārtika	,,	Nov.	1	28	40	Agrahā	,,
Nov.	17	18	26	Agrahā	,,	Dec.	1	18	11	Pauṣa	,,
Dec.	17	7	32	Pauṣa	,,	Dec.	31	10	35	Māgha	,,

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	14	15	38	Karkaṭa	on	July	15	24	3
Kumbha	on	Feb.	12	28	36	Siṁha	on	Aug.	16	9	5
Mīna	on	Mar.	13	25	32	Kanyā	on	Sept.	16	8	59
Meṣa	on	Apr.	13	10	4	Tulā	on	Oct.	16	20	51
Vṛṣa	on	May	14	7	1	Vṛścika	on	Nov.	15	20	32
Mithuna	on	June	14	13	42	Dhanus	on	Dec.	15	11	6

Saka era 1874-75, Saṁvat 2009-10 (Mar. 16, Nov. 7), B.S. 1359-60 (Apr. 14).
Kollam era 1128-29 (Aug. 17), 27 Vijaya (Mar. 16, Apr. 13)

Date	Beng. Date		*Nirayana* Long. of Moon (चं) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec.28	13	9	1	5	16	1	18	16	2	1	4	2	13	38	2	26	0	3	8	10	3	20	10
Jan 4	20	9	4	2	2	4	13	50	4	25	37	5	7	28	5	19	30	6	1	45	6	14	18
11	27	9	6	27	15	7	10	36	7	24	25	8	8	39	8	23	14	9	8	4	9	23	1
18	4	10	10	7	58	10	22	46	11	7	19	11	21	33	0	5	28	0	19	1	1	2	16
25	11	10	1	15	12	1	27	52	2	10	21	2	22	37	3	4	44	3	16	43	3	28	37
Feb. 1	18	10	4	10	27	4	22	15	5	4	4	5	15	58	5	27	59	6	10	12	6	22	42
8	25	10	7	5	32	7	18	45	8	2	25	8	16	32	9	1	4	9	15	58	10	1	6
15	3	11	10	16	20	11	1	27	11	16	23	0	0	57	0	15	5	0	28	46	1	12	1
22	10	11	1	24	53	2	7	25	2	19	41	3	1	46	3	13	42	3	25	33	4	7	22
Mar. 1	17	11	4	19	10	5	1	1	5	12	55	5	24	55	6	7	2	6	19	20	7	1	51
8	24	11	7	14	39	7	27	45	8	11	14	8	25	8	9	9	26	9	24	8	10	9	8
15	1	12	10	24	20	11	9	33	11	24	37	0	9	23	0	23	44	1	7	36	1	20	58
22	8	12	2	3	14	2	16	26	2	28	39	3	10	39	3	22	31	4	4	18	4	16	6
29	15	12	4	27	56	5	9	51	5	21	54	6	4	4	6	16	24	6	28	54	7	11	35
Apr. 5	22	12	7	24	29	8	7	38	8	21	3	9	4	47	9	18	51	10	3	15	10	17	57
12	29	12	11	2	51	11	17	50	0	2	46	0	17	29	1	1	50	1	15	46	1	29	13
19	6	1	2	12	18	2	24	49	3	7	4	3	19	5	4	0	57	4	12	45	4	24	34
26	13	1	5	6	27	5	18	29	6	0	41	6	13	5	6	25	41	7	8	28	7	21	27
May 3	20	1	8	4	38	8	17	59	9	1	32	9	15	18	9	29	16	10	13	27	10	27	50
10	27	1	11	12	22	11	26	57	0	11	31	0	25	54	1	10	2	1	23	49	2	7	12
17	3	2	2	20	10	3	2	46	3	15	4	3	27	7	4	9	0	4	20	50	5	2	41
24	10	2	5	14	38	5	26	46	6	9	6	6	21	42	7	4	33	7	17	40	8	1	1
31	17	2	8	14	34	8	28	17	9	12	8	9	26	8	10	10	12	10	24	21	11	8	33
June 7	24	2	11	22	47	0	6	59	0	21	5	1	5	2	1	18	46	2	2	13	2	15	21
14	31	2	2	28	11	3	10	42	3	22	57	4	4	59	4	16	54	4	28	45	5	10	37
21	7	3	5	22	36	6	4	46	6	17	10	6	29	53	7	12	55	7	26	17	8	9	58
28	14	3	8	23	54	9	8	4	9	22	21	10	6	42	10	21	4	11	5	22	11	19	35
July 5	21	3	0	3	39	0	17	34	1	1	18	1	14	49	1	28	7	2	11	10	2	23	59
12	28	3	3	6	33	3	18	53	4	1	2	4	13	2	4	24	55	5	6	45	5	18	38
19	3	4	6	0	36	6	12	45	6	25	9	7	7	52	7	20	57	8	4	26	8	18	19
26	10	4	9	2	33	9	17	4	10	1	47	10	16	35	11	1	20	11	15	56	0	0	19
Aug. 2	17	4	0	14	25	0	28	13	1	11	43	1	24	55	2	7	52	2	20	33	3	3	3
9	24	4	3	15	21	3	27	29	4	9	30	4	21	25	5	3	16	5	15	6	5	26	58
16	31	4	6	8	56	6	21	3	7	3	24	7	16	3	7	29	4	8	12	30	8	26	24
23	6	5	9	10	43	9	25	26	10	10	26	10	25	35	11	10	42	11	25	40	0	10	19
30	13	5	0	24	35	1	8	26	1	21	52	2	4	55	2	17	38	3	0	5	3	12	20
Sept. 6	20	5	3	24	25	4	6	24	4	18	18	5	0	9	5	11	59	5	23	51	6	5	45
13	27	5	6	17	44	6	29	52	7	12	11	7	24	46	8	7	41	8	21	0	9	4	45
20	3	6	9	18	57	10	3	37	10	18	39	11	3	54	11	19	14	0	4	26	0	19	20
27	10	6	1	3	40	1	17	49	2	1	20	2	14	23	2	27	3	3	9	24	3	21	31
Oct. 4	17	6	4	3	29	4	15	21	4	27	11	5	9	1	5	20	54	6	2	49	6	14	50
11	24	6	6	26	57	7	9	11	7	21	35	8	4	12	8	17	5	9	0	17	9	13	52
18	1	7	9	27	52	10	12	17	10	27	6	11	12	11	11	27	25	0	12	36	0	27	34
25	8	7	1	12	10	1	26	18	2	9	55	2	23	4	3	5	47	3	18	9	4	0	16
Nov. 1	15	7	4	12	12	4	24	3	5	5	52	5	17	44	5	29	40	6	11	43	6	23	54
8	22	7	7	6	13	7	18	41	8	1	18	8	14	7	8	27	8	9	10	24	9	23	56
15	29	7	10	7	47	10	21	57	11	6	26	11	21	9	0	6	0	0	20	53	1	5	37
22	6	8	1	20	5	2	4	10	2	17	50	3	1	3	3	13	50	3	26	17	4	8	27
29	13	8	4	20	26	5	2	18	5	14	8	5	26	2	6	8	2	6	20	12	7	2	33
Dec. 6	20	8	7	15	6	7	27	52	8	10	50	8	24	0	9	7	21	9	20	53	10	4	37
13	27	8	10	18	31	11	2	35	11	16	49	0	1	10	0	15	34	0	29	57	1	14	14
20	5	9	1	28	18	2	12	7	2	25	36	3	8	44	3	21	32	4	4	1	4	16	14
27	12	9	4	28	15	5	10	9	5	22	1	6	3	56	6	15	57	6	28	10	7	10	37
Jan. 3	19	9	7	23	21	8	6	22	8	19	41	9	3	16	9	17	5	10	1	4	10	16	18

Ayanamsa on 1st Jan. : 23° 12′ 20″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	16	9	6 3 02	0R17 48	10 7 39	8 17 05	10 1 42	7 28 46	8 0 11
3	18	9	6 3 09	0 17 47	10 9 12	8 19 07	10 3 59	8 1 37	8 3 04
5	20	9	6 3 15	0D17 46	10 10 44	8 21 09	10 6 16	8 4 31	8 5 59
7	22	9	6 3 21	0 17 47	10 12 16	8 23 12	10 8 32	8 7 27	8 8 57
9	24	9	6 3 27	0 17 48	10 13 49	8 25 14	10 10 48	8 10 26	8 11 56
11	26	9	6 3 32	0 17 50	10 15 21	8 27 16	10 13 03	8 13 27	8 14 58
13	28	9	6 3 38	0 17 52	10 16 54	8 29 19	10 15 16	8 16 30	8 18 02
15	30	9	6 3 43	0 17 56	10 18 26	9 1 21	10 17 29	8 19s34	8 21 07
17	2	10	6 3 46	0 18 00	10 19 58	9 3 23	10 19 41	8 22 41	8 24 15
19	4	10	6 3 50	0 18 06	10 21 30	9 5 25	10 21 52	8 25 50	8 27 25
21	7	10	6 3 53	0 18 12	10 23 02	9 7 27	10 24 02	8 29 01	9 0 37
23	9	10	6 3 56	0 18 18	10 24 34	9 9 29	10 26 11	9 2 14	9 3 51
25	11	10	6 3 59	0 18 26	10 26 06	9 11 31	10 28 18	9 5 30	9 7 08
27	13	10	6 4 01	0 18 34	10 27 38	9 13 33	11 0 24	9 9 48	9 10 28
29	15	10	6 4 03	0 18 43	10 29 09	9 15 35	11 2 29	9 12 08	9 13 50
31	16	10	6 4 04	0 18 53	11 0 41	9 17 37	11 4 32	9 15 32	9 17 14
Feb. 2	18	10	6 4 05	0 19 04	11 2 12	9 19 39	11 6 33	9 18⊙58	9 20 42
4	20	10	6R4 05	0 19 15	11 3 44	9 21 41	11 8 33	9 22 27	9 24 12
6	22	10	6 4 05	0 19 27	11 5 15	9 23 42	11 10 30	9 25 59	9 27 46
8	24	10	6 4 05	0 19 39	11 6 45	9 25 44	11 12 26	9 29 33	10 1 21
10	26	10	6 4 04	0 19 53	11 8 17	9 27 45	11 14 19	10 3 10	10 4 59
12	28	10	6 4 03	0 20 06	11 9 48	9 29 47	11 16 10	10 6 49	10 8 38
14	30	10	6 4 01	0 20 21	11 11 18	10 1 48	11 17 59	10 10 28	10 12 18
16	3	11	6 3 59	0 20 36	11 12 49	10 3 49	11 19 45	10 14 08	10 15 57
18	5	11	6 3 57	0 20 52	11 14 19	10 5 50	11 21 28	10 17 46	10 19r33
20	7	11	6 3 54	0 21 08	11 15 50	10 7 51	11 23 08	10 21 20	10 23 04
22	9	11	6 3 50	0 21 25	11 17 20	10 9 52	11 24 45	10 24 46	10 26 26
24	11	11	6 3 47	0 21 42	11 18 50	10 11 53	11 26 17	10 28 02	10 29 35
26	13	11	6 3 43	0 22 00	11 20 19	10 13 54	11 27 46	11 1 03	11 2 27
28	15	11	6 3 38	0 22 19	11 21 49	10 15 54	11 29 11	11 3 44	11 4 56
Mar. 2	17	11	6 3 33	0 22 38	11 23 18	10 17 54	0 0 31	11 6 01	11 6 58
4	18	11	6 3 28	0 22 57	11 24 48	10 19 55	0 1 46	11 7 48	11 8 29
6	20	11	6 3 23	0 23 17	11 26 17	10 21 55	0 2 56	11 9 02	11 9 26
8	22	11	6 3 17	0 23 37	11 27 46	10 23 55	0 4 00	11 9 41	11R9 47
10	24	11	6 3 11	0 23 58	11 29 14	10 25 55	0 4 57	11 9 44	11 9 32
12	26	11	6 3 04	0 24 19	0 0 43	10 27 55	0 5 48	11 9s12	11 8 44
14	29	11	6 2 57	0 24 41	0 2 11	10 29 54	0 6 32	11 8 09	11 7 28
16	1	12	6 2 50	0 25 03	0 3 40	11 1 54	0 7 09	11 6 42	11 5 51
18	3	12	6 2 43	0 25 25	0 5 08	11 3 53	0 7 37	11 4⊙58	11 4 03
20	6	12	6 2 35	0 25 48	0 6 35	11 5 53	0 7 56	11 3 08	11 2 13
22	8	12	6 2 28	0 26 11	0 8 03	11 7 52	0R8 06	11 1 20	11 0 30
24	10	12	6 2 19	0 26 35	0 9 31	11 9 51	0 8 07	10 29 43	10 29r00
26	11	12	6 2 11	0 26 58	0 10 58	11 11 50	0 7 57	10 28 23	10 27 50
28	13	12	6 2 03	0 27 22	0 12 25	11 13 49	0 7 40	10 27 24	10 27 03
30	15	12	6 1 54	0 27 47	0 13 52	11 15 47	0 7 10	10 26 47	10 26 38
Apr. 1	17	12	6 1 45	0 28 11	0 15 19	11 17 46	0 6 32	10D26 34	10 26 36
3	19	12	6 1 37	0 28 36	0 16 45	11 19 44	0 5 43	10 26 44	10 26 56
5	21	12	6 1 28	0 29 02	0 18 12	11 21 42	0 4 47	10 27 14	10 27 37
7	23	12	6 1 19	0 29 27	0 19 38	11 23 40	0 3 44	10 28 04	10 28 35
9	25	12	6 1 09	0 29 53	0 21 04	11 25 38	0 2 35	10 29 11	10 29 50
11	27	12	6 1 00	1 0 19	0 22 29	11 27 36	0 1 22	11 0 34	11 1 21
13	30	12	6 0 51	1 0 45	0 23 55	11 29 34	0 0⊙07	11 2 11	11 3 04
15	2	1	6 0°42	1 1 11	0 25 21	0 1 31	11 28 51	11 4 01	11 5 00
17	4	1	6 0 33	1 1 38	0 26 46	0 3 29	11 27 38	11 6 03	11 7 07

1953 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 12′ 20″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr 17	4	1	6R	0	33	1	1	38	0	26	46	0	3	29	11R	27	38	11	6	03	11	7	07
19	6	1	6	0	23	1	2	04	0	28	11	0	5	26	11	26	28	11	8	15	11	9	25
21	8	1	6	0	14	1	2	31	0	29	36	0	7	23	11	25	23	11	10	37	11	11	52
23	10	1	6	0	05	1	2	58	1	1	00	0	9	20	11	24	25	11	13	08	11	14	27
25	12	1	5	29	56	1	3	25	1	2	25	0	11	17	11	23	35	11	15	48	11	17	11
27	13	1	5	29	47	1	3	53	1	3	49	0	13	14	11	22	54	11	18	36	11	20	03
29	15	1	5	29	38	1	4	20	1	5	13	0	15	10	11	22	22	11	21	32	11	23	03
May 1	17	1	5	29	30	1	4	48	1	6	37	0	17	07	11	22	00	11	24	36	11	26	11
3	19	1	5	29	21	1	5	15	1	8	01	0	19	03	11	21	48	11	27	48	11	29	26
5	21	1	5	29	13	1	5	43	1	9	25	0	20	59	11D	21	46	0	1	07	0	2	49
7	24	1	5	29	05	1	6	11	1	10	48	0	22	55	11	21	53	0	4	33	0	6	20
9	26	1	5	28	57	1	6	39	1	12	11	0	24	52	11	22	09	0	8	08	0	9	58
11	28	1	5	28	49	1	7	07	1	13	34	0	26	48	11	22	33	0	11	49	0	13	43
13	30	1	5	28	42	1	7s	35	1	14	57	0	28	43	11	23	06	0	15	39	0	17s	36
15	2	1	5	28	35	1	8	03	1	16	20	1	0	39	11	23	46	0	19	36	0	21	37
17	4	1	5	28	28	1	8	31	1	17	43	1	2	35	11	24	33	0	23	40	0	25	44
19	6	1	5	28	21	1	8	59	1	19	05	1	4	30	11	25	26	0	27	50	0	29	58
21	8	1	5	28	15	1	9	27	1	20s	27	1	6	26	11	26	26	1	2	08	1	4	16
23	10	1	5	28	09	1	9	56	1	21	49	1	8	21	11	27	31	1	6	27	1	8◦	38
25	12	1	5	28	03	1	10◦	24	1	23	11	1	10	17	11	28	42	1	10	50	1	13	01
27	14	1	5	27	58	1	10	52	1	24	33	1	12	12	11	29	57	1	15	13	1	17	24
29	16	1	5	27	53	1	11	20	1	25	54	1	14	07	0	1	17	1	19	35	1	21	45
31	18	1	5	27	48	1	11	48	1	27	16	1	16	02	0	2	41	1	23	53	1	26	00
June 2	20	1	5	27	44	1	12	16	1	28	37	1	17	57	0	4	08	1	28	08	2	0	09
4	22	1	5	27	40	1	12	44	1	29	58	1	19	52	0	5	40	2	2r	11	2	4	10
6	24	1	5	27	36	1	13	12	2	1	19	1	21	47	0	7	14	2	6	08	2	8	03
8	27	1	5	27	33	1	13r	40	2	2	40	1	23	41	0	8	52	2	9	55	2	11	45
10	29	1	5	27	30	1	14	08	2	4	01	1	25	36	0	10	32	2	13	33	2	15	18
12	1	2	5	27	27	1	14	36	2	5	21	1	27	31	0	12	15	2	17	01	2	18	41
14	3	2	5	27	25	1	15	04	2	6	42	1	29	26	0	14	01	2	20	19	2	21	54
16	5	2	5	27	23	1	15	31	2	8	02	2	1	20	0	15	48	2	23	26	2	24	56
18	7	2	5	27	22	1	15	59	2	9	22	2	3	15	0	17	38	2	26	23	2	27	47
20	8	2	5	27	21	1	16	26	2	10	42	2	5	09	0	19	29	2	29	09	3	0	28
22	10	2	5	27	21	1	16	53	2	12	02	2	7	04	0	21	23	3	1	44	3	2	57
24	12	2	5D	27	20	1	17	20	2	13	21	2	8	58	0	23	18	3	4	07	3	5	15
26	14	2	5	27	21	1	17	47	2	14	41	2	10	53	0	25	14	3	6	19	3	7	20
28	16	2	5	27	21	1	18	14	2	16	00	2	12	47	0	27	12	3	8	18	3	9	13
30	19	2	5	27	22	1	18	41	2	17	19	2	14	42	0	29	12	3	10	04	3	10	52
July 2	21	2	5	27	24	1	19	07	2	18	39	2	16	36	1	1	12	3	11	36	3	12	16
4	23	2	5	27	26	1	19	34	2	19	58	2	18	30	1	3	15	3	12	53	3	13	25
6	25	2	5	27	28	1	20	00	2	21	17	2	20	25	1	5	18	3	13	53	3	14	17
8	27	2	5	27	30	1	20	25	2	22◦	35	2	22	19	1	7	23	3	14	37	3	14	52
10	29	2	5	27	34	1	20	51	2	23	54	2	24	14	1	9	28	3	15	03	3	15	09
12	1	3	5	27	37	1	21	17	2	25	13	2	26	08	1	11	34	3R	15	10	3	15	06
14	3	3	5	27	41	1	21	42	2	26	31	2	28	03	1	13	42	3	14	57	3	14	44
16	5	3	5	27	45	1	22	07	2	27	50	2	29	57	1	15	50	3	14	26	3	14	04
18	7	3	5	27	49	1	22	32	2	29	08	3	1	52	1	17	59	3	13	38	3	13s	08
20	9	3	5	27	54	1	22	56	3	0	26	3	3	46	1	20	09	3	12	34	3	11	57
22	11	3	5	28	00	1	23	20	3	1	44	3	5	41	1	22	19	3	11	18	3	10	37
24	13	3	5	28	05	1	23	44	3	3	02	3	7	35	1	24	30	3	9	54	3	9◦	12
26	15	3	5	28	11	1	24	08	3	4	20	3	9	30	1	26	42	3	8	29	3	7	46
28	17	3	5	28	18	1	24	31	3	5	38	3	11	24	1	28	55	3	7	08	3	6	32
30	20	3	5	28	24	1	24	54	3	6	55	3	13	19	2	1	08	3	5	58	3	5	28
Aug. 1	22	3	5	28	31	1	25	16	3	8	13	3	15	14	2	3	22	3	5	03	3	4r	43

Ayanamsa on 1st Jan. : 23° 12′ 20″

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र.	शु ♀ शु	बु·☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	22 3	5 28 31	1 25 16	3 8s13	3 15 14	2 3 22	3R 5s03	3 4r43
3	24 3	5 28 39	1 25 39	3 9 30	3 17 09	2 5 37	3 4 28	3 4 20
5	26 3	5 28 46	1 26 01	3 10 48	3 19 04	2 7 52	3D 4 17	3 4 21
7	28 3	5 28 54	1 26 22	3 12 05	3 20 59	2 10 08	3 4 32	3 4 49
9	30 3	5 29 03	1 26 43	3 13 22	3 22 54	2 12 24	3 5 13	3 5 44
11	2 4	5 29 11	1 27 04	3 14 39	3 24 49	2 14 41	3 6 22	3 7 07
13	4 4	5 29 20	1 27 24	3 15 56	3 26 44	2 16 58	3 7 58	3 8 55
15	5 4	5 29 30	1 27 44	3 17 13	3 28 39	2 19 16	3 9 59	3 11 09
17	7 4	5 29 39	1 28 04	3 18 30	4 0 35	2 21 34	3 12 25	3 13 46
19	9 4	5 29 49	1 28 23	3 19 47	4 2 30	2 23 53	3 15 13	3 16 44
21	11 4	5 29 59	1 23 41	3 21 04	4 4 26	2 26 11	3 18 20	3 20 00
23	13 4	6 0 09	1 28 59	3 22r20	4 6 21	2 28 31	3 21 44	3 23 31
25	16 4	6 0 20	1 29 17	3 23 37	4 8 17	3 0 51	3 25 20	3 27s12
27	18 4	6 0 31	1 29 34	3 24 53	4 10 13	3 3 12	3 29 06	4 1 02
29	20 4	6 0 42	1 29 51	3 26 10	4 12 08	3 5 32	4 2 58	4 4 55
31	23 4	6 0 53	2 0 07	3 27 26	4 14 04	3 7 54	4 6 53	4 8 51
Sept. 2	25 4	6 1 05	2 0 22	3 28 43	4 16 01	3 10 15	4 10 49	4 12 46
4	27 4	6 1 16	2 0 37	3 29 59	4 17 57	3 12 37	4 14 43	4 16 40
6	28 4	6 1 28	2 0 51	4 1 15	4 19 53	3 15 00	4 18 35	4 20ö30
8	30 4	6 1 40	2 1 05	4 2 31	4 21 50	3 17 22	4 22 24	4 24 17
10	2 5	6 1 53	2 1 18	4 3 47	4 23 46	3 19 46	4 26 09	4 28 00
12	4 5	6 2 05	2 1 31	4 5 03	4 25 43	3 22 09	4 29 49	5 1 38
14	6 5	6 2 18	2 1 43	4 6 19	4 27 40	3 24 33	5 3 26	5 5 12
16	8 5	6 2 31	2 1 54	4 7 35	4 29 37	3 26 57	5 6 58	5 8 42
18	10 5	6 2 44	2 2 05	4 8 51	5 1 34	3 29 21	5 10 25	5 12 08
20	12 5	6 2 57	2 2 14	4 10 07	5 3 31	4 1 46	5 13 49	5 15 29
22	14 5	6 3 11	2 2 23	4 11 22	5 5 28	4 4 11	5 17 08	5 18r47
24	16 5	6 3 24	2 2 32	4 12 38	5 7 26	4 6 36	5 20 24	5 22 00
26	19 5	6 3 38	2 2 40	4 13 54	5 9 23	4 9 02	5 23 36	5 25 10
28	21 5	6 3 51	2 2 47	4 15 09	5 11 21	4 11 28	5 26 44	5 28 16
30	23 5	6 4 05	2 2 53	4 16 25	5 13 19	4 13 54	5 29 48	6 1 19
Oct. 2	25 5	6 4 19	2 2 59	4 17 40	5 15 17	4 16 20	6 2 49	6 4 18
4	27 5	6 4 33	2 3 03	4 18 55	5 17 15	4 18 47	6 5 47	6 7 14
6	29 5	6 4 47	2 3 07	4 20 11	5 19 14	4 21 14	6 8 41	6 10 06
8	30 5	6 5s02	2 3 11	4 21 26	5 21 12	4 23 41	6 11 31	6 12 55
10	2 6	6 5 16	2 3 13	4 22 41	5 23 11	4 26 08	6 14 18	6 15 39
12	4 6	6 5 30	2 3 15	4 23 57	5 25 09	4 28 36	6 17 00	6 18 20
14	6 6	6 5 45	2R 3 16	4 25 12	5 27 08	5 1 04	6 19 38	6 20 55
16	8 6	6 5 59	2 3 16	4 26 27	5 29 07	5 3 32	6 22 11	6 23 25
18	10 6	6 6 14	2 3 15	4 27 42	6 1 06	5 6 00	6 24 38	6 25 49
20	13 6	6 6 28	2 3 13	4 28 57	6 3 05	5 8 28	6 26 58	6 28 05
22	15 6	6 6 43	2 3 11	5 0 12	6 5 05	5 10 57	6 29 10	7 0 13
24	17 6	6 6ö57	2 3 08	5 1 26	6 7 04	5 13 25	7 1 13	7 2 10
26	19 6	6 7 12	2 3 04	5 2 41	6 9 04	5 15 54	7 3 04	7 3 54
28	22 6	6 7 26	2 2 59	5 3 56	6 11 03	5 18 23	7 4 40	7 5 22
30	23 6	6 7 41	2 2 53	5 5 11	6 13 03	5 20 53	7 5 58	7 6 30
Nov. 1	25 6	6 7 56	2 2 47	5 6 25	6 15 03	5 23 22	7 6 55	7 7 14
3	27 6	6 8 10	2 2 40	5 7 40	6 17 03	5 25 51	7 7 25	7R 7 28
5	29 6	6 8 24	2 2 32	5 8 54	6 19 04	5 28 21	7 7 29	7 7 09
7	1 7	6 8r39	2 2 23	5 10 09	6 21 04	6 0 51	7 6 45	7 6 11
9	3 7	6 8 53	2 2 14	5 11 23	6 23 05	6 3 21	7 5s27	7 4 34
11	5 7	6 9 07	2 2 04	5 12 37	6 25 05	6 5 51	7 3 32	7 2 23
13	7 7	6 9 21	2 1 53	5 13 52	6 27 06	6 8 21	7 1 07	6 29ö48
15	9 7	6 9 35	2 1 42	5 15 06	6 29 07	6 10 51	6 28 27	6 27 08

Date	Tithi & Month	Nirayana Longitudes at 5-30 A.M. I.S.T.						
		श ♄ म	बृ ♃ गु	म ♂ भ	र ☉ सू	शु ♀ भृ	बु ☿ सौ	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	9 7	6 9 35	2R1 42	5 15 06	6 29 07	6 10 51	6R28 27	6 27 06
17	11 7	6 9 49	2 1 30	5 16 20	7 1 08	6 13 21	6 25 52	6 24 43
19	13 7	6 10 03	2 1 18	5 17 34	7 3 09	6 15 51	6 23 42	6 22 52
21	16 7	6 10 17	2 1 05	5 18 48	7 5 10	6 18 22	6 22r12	6 21 44
23	18 7	6 10 30	2 0 51	5 20 02	7 7 11	6 20 52	6 21 27	6D21 22
25	20 7	6 10 44	2 0 37	5 21 16	7 9 13	6 23 23	6 21 28	6 21 44
27	22 7	6 10 57	2 0 23	5 22 29	7 11 14	6 25 53	6 22 09	6 22 43
29	24 7	6 11 10	2 0 08	5 23 43	7 13 15	6 28 24	6 23 24	6 24 12
Dec. 1	25 7	6 11 23	1 29 53	5 24 56	7 15 17	7 0 55	6 25 06	6 26 05
3	28 7	6 11 36	1 29 37	5 26 10	7 17 19	7 3 25	6 27 08	6 28 16
5	29 7	6 11 48	1 29 21	5 27 23	7 19 21	7 5 56	6 29 27	7 0 40
7	1 8	6 12 01	1 29 05	5 28 37	7 21 22	7 8 27	7 1 50	7 3 14
9	3 8	6 12 13	1 28 49	5 29 50	7 23 24	7 10 58	7 4 35	7 5 56
11	5 8	6 12 25	1 28 33	6 1 03	7 25 26	7 13 29	7 7 19	7 8 44
13	7 8	6 12 37	1 28 16	6 2 16	7 27 28	7 15 59	7 10 09	7 11 35
15	9 8	6 12 48	1 28 00	6 3 29	7 29 30	7 18 30	7 13 02	7 14 30
17	12 8	6 13 00	1 27 44	6 4 41	8 1 32	7 21 01	7 15 58	7 17 27
19	14 8	6 13 11	1 27 27	6 5 54	8 3 35	7 23 32	7 18 56	7 20 26
21	16 8	6 13 21	1 27 11	6 7 06	8 5 37	7 26 03	7 21 56	7 23 25
23	18 8	6 13 32	1 26 56	6 8 19	8 7 38	7 28 34	7 24 57	7 26 28
25	20 8	6 13 42	1 26 40	6 9 31	8 9 41	8 1 05	7 27 59	7 29 31
27	22 8	6 13 52	1 26 24	6 10 43	8 11 43	8 3 36	8 1 03	8 2 35
29	24 8	6 14 02	1 26 09	6 11 55	8 13 46	8 6 07	8 4 08	8 5 41
31	26 8	6 14 11	1 25 55	6 13 07	8 15 48	8 8 38	8 7 14	8 8 47
Jan. 2	27 8	6 14 20	1 25 41	6 14 18	8 17 50	8 11 09	8 10 21	8 11 55

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	9 19 20	9 20 52	2R23 33	6 0 31	3R 29 45	23 12 20
February 1	9 19 7	9 19 14	2 22 15	6R 0 40	3 29 6	23 12 26
March 1	9 19 0	9 17 45	2 21 26	6 0 21	3 28 24	23 12 30
April 1	9 17 21	9 16 6	2D21 15	5 29 37	3 27 47	23 12 33
May 1	9 14 14	9 14 31	2 21 53	5 28 50	3 27 35	23 12 37
June 1	9 11 17	9 12 52	2 23 14	5 28 10	3 D27 48	23 12 42
July 1	9 10 3	9 11 17	2 24 56	5 27 54	3 28 26	23 12 47
August 1	9 10 1	9 9 39	2 26 47	5D28 7	3 29 18	23 12 52
September 1	9 9 40	9 7 59	2 28 27	5 28 50	4 0 17	23 12 56
October 1	9 7 43	9 6 24	2 29 32	5 29 49	4 1 6	23 13 0
November 1	9 4 18	9 4 45	2R 29 53	6 0 57	4 1 39	23 13 3
December 1	9 1 36	9 3 10	2 29 25	6 1 58	4R 1 46	23 13 8
January 1	9 0 44	9 1 32	2 28 18	6 2 39	4 1 32	23 13 14

Combustion or Heliacal Setting of Planets

Saturn :	From Oct. 9 to Dec. 7
Jupiter :	From Mar. 13 to June 7
Mars :	From May 22 to Aug. 23
Venus :	From Apr. 9 to Apr. 15
Mercury :	From Jan. 15 to Feb. 19, Mar. 12 to Mar. 25, May 14 to June 4, July 19 to Aug. 2, Aug. 26 to Sept. 23, Nov. 9 to Nov. 21.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Mar.	9,	9	12	11	9	47	Apr.	1,	9	6	10	26	34
	July	11,	22	51	3	15	10	Aug.	4,	26	39	3	4	17
	Nov.	3,	26	58	7	7	28	Nov.	23,	28	34	6	21	22
Venus	Mar.	23,	9	14	0	8	8	May	4,	18	11	11	21	46
Mars	—		—			—		—		—			—	
Jupiter	—		—			—		Jan.	5,	13	30	0	17	46
	Oct.	15,	7	30	2	3	16	—		—			—	
Saturn	Feb.	5,	7	13	6	4	6	June	23,	22	18	5	27	20
Uranus	—		—			—		Mar.	22,	25	58	2	21	13
	Oct.	29	16	34	2	29	53	—		—			—	
Neptune	Jan.	24,	25	14	6	0	41	July	2,	26	18	5	27	54
Piuto	—		—			—		May	2,	24	0	3	27	35
	Nov.	26,	15	0	4	1	47	—		—			—	

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	15	19	33	Māgha	Sukla	Jan.	29	29	14	Phālguna	Vadi
Feb.	14	6	40	Phālguṇa	,,	Feb.	28	24	29	Caitra	,,
Mar.	15	16	35	Caitra	,,	Mar.	30	18	25	Vaiśākha	,,
Apr.	13	25	39	Vaiśākha (*Mala*)	,,	Apr.	29	9	50	Vaiśākha (*Adhika*)	,,
May	13	10	36	Vaiśākha	,,	May	28	22	33	Jyaiṣṭha	,,
June	11	20	25	Jyaiṣṭha	,,	June	27	8	59	Āṣāḍha	,,
July	11	7	58	Āṣāḍha	,,	July	26	17	50	Śravaṇa	,,
Aug.	9	21	40	Śrāvaṇa	,,	Aug.	24	25	51	Bhādra	,,
Sept.	8	13	17	Bhādra	,,	Sept.	23	9	45	Āśvina	,,
Oct.	8	6	10	Āśvina	,,	Oct.	22	18	26	Kārtika	,,
Nov.	6	23	28	Kārtika	,,	Nov.	20	28	42	Agrahā	,,
Dec.	6	16	18	Agrahā	,,	Dec.	20	17	13	Pauṣa	,,

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Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	21	48	Karkaṭa	on	July	16	6	44
Kumbha	on	Feb.	12	10	47	Siṁha	on	Aug.	16	15	5
Mina	on	Mar.	14	7	44	Kanyá	on	Sept.	16	14	58
Meṣa	on	Apr.	13	16	19	Tulà	on	Oct.	16	26	50
Vṛṣa	on	May	14	13	15	Vṛścika	on	Nov.	15	26	33
Mithuna	on	June	14	19	52	Dhanus	on	Dec.	15	17	8

1954 A.D. Longitude of Moon CONDENSED

Saka era 1875-76, Samvat 2010-11 (Apr. 4, Oct. 27), B.S. 1360-61 (Apr. 14),
•Kollam era 1129-30 (Aug. 17), 28 Jaya (Apr. 4, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec.27	12 9	4 28 15	5 10 9	5 22 1	6 3 56	6 15 57	6 28 10	7 10 37
Jan. 3	19 9	7 23 21	8 6 22	8 19 41	9 3 16	9 17 5	10 1 4	10 15 12
10	26 9	10 29 24	11 13 38	11 27 50	0 11 59	0 26 2	1 9 58	1 29 45
17	3 10	2 7 20	2 20 43	3 3 51	3 16 45	3 29 24	4 11 48	4 24 0
24	10 10	5 6 2	5 17 57	5 29 49	6 11 43	6 23 43	7 5 54	7 18 21
31	17 10	8 1 7	8 14 15	8 27 46	9 11 40	9 25 54	10 10 23	10 25 1
Feb. 7	24 10	11 9 41	11 24 17	0 8 42	0 22 54	1 6 50	1 20 30	2 3 55
14	2 11	2 17 6	3 0 4	3 12 49	3 25 24	4 7 48	4 20 3	5 2 9
21	9 11	5 14 8	5 26 3	6 7 54	6 19 47	7 1 45	7 13 53	7 26 15
28	16 11	8 8 56	8 22 2	9 5 34	9 19 34	10 4 0	10 18 48	11 3 50
Mar. 7	23 11	11 18 57	0 3 58	0 18 44	1 3 10	1 17 13	2 0 51	2 14 8
14	30 11	2 27 5	3 9 47	3 22 15	4 4 34	4 16 44	4 28 48	5 10 47
21	7 12	5 22 42	6 4 35	6 16 27	6 28 21	7 10 19	7 22 25	8 4 44
28	14 12	8 17 21	9 0 20	9 13 46	9 27 40	10 12 4	10 26 54	11 12 4
Apr. 4	21 12	11 27 24	0 12 41	0 27 45	1 12 27	1 26 42	2 10 29	2 23 46
11	28 12	3 6 44	3 19 20	4 1 40	4 13 49	4 25 51	5 7 47	5 19 41
18	5 1	6 1 34	6 13 27	6 25 21	7 7 19	7 19 22	8 1 33	8 13 55
25	12 1	8 26 33	9 9 29	9 22 49	10 6 34	10 20 48	11 5 26	11 20 28
May 2	19 1	0 5 41	0 20 58	1 6 5	1 20 54	2 5 18	2 19 14	3 2 41
9	26 1	3 15 41	3 28 20	4 10 40	4 22 47	5 4 46	5 16 39	5 28 31
16	2 2	6 10 24	6 22 19	7 4 19	7 16 25	7 28 39	8 11 1	8 23 34
23	9 2	9 6 21	9 19 23	10 2 44	10 16 26	11 0 30	11 14 54	11 29 37
30	16 2	0 14 31	0 29 30	1 14 25	1 29 6	2 13 27	2 27 24	3 10 55
June 6	23 2	3 24 0	4 6 43	4 19 7	5 1 16	5 13 16	5 25 9	6 7 2
13	30 2	6 19 56	7 0 55	7 13 3	7 25 19	8 7 47	8 20 26	9 3 17
20	5 3	9 16 22	9 29 41	10 13 14	10 27 1	11 11 3	11 25 17	0 9 42
27	12 3	0 24 13	1 8 47	1 23 16	2 7 37	2 21 42	3 5 29	3 18 55
July 4	19 3	4 2 0	4 14 44	4 27 10	5 9 21	5 21 22	6 3 17	6 15 10
11	26 3	6 27 6	7 9 8	7 21 22	8 3 48	8 16 30	8 29 28	9 12 42
18	2 4	9 26 11	10 9 55	10 23 49	11 7 53	11 22 2	0 6 15	0 20 29
25	9 4	1 4 42	1 18 51	2 2 53	2 16 47	3 0 28	3 13 56	3 27 9
Aug. 1	16 4	4 10 4	4 22 43	5 5 7	5 17 18	5 29 18	6 11 12	6 23 5
8	23 4	7 5 0	7 17 4	7 29 19	8 11 51	8 24 43	9 7 56	9 21 31
15	30 4	10 5 26	10 19 37	11 3 59	11 18 27	0 2 55	0 17 17	1 1 31
22	5 5	1 15 34	1 29 26	2 13 7	2 26 35	3 9 52	3 22 58	4 5 51
29	12 5	4 18 32	5 1 1	5 13 18	5 25 24	6 7 22	6 19 14	7 1 4
Sept 5	19 5	7 12 57	7 24 58	8 7 12	8 19 44	9 2 39	9 15 59	9 29 46
12	26 5	10 13 59	10 28 33	11 13 21	11 28 15	0 13 7	0 27 47	1 12 12
19	2 6	1 26 17	2 10 4	2 23 32	3 6 44	3 19 42	4 2 28	4 15 3
26	9 6	4 27 28	5 9 44	5 21 51	6 3 51	6 15 45	6 27 35	7 9 23
Oct. 3	16 6	7 21 14	8 3 13	8 15 23	8 27 51	9 10 41	9 23 59	10 7 47
10	23 6	10 22 4	11 6 47	11 21 51	0 7 4	0 22 16	1 7 17	1 21 59
17	30 6	2 6 17	2 20 10	3 3 38	3 16 45	3 29 33	4 12 7	4 24 28
24	7 7	5 6 40	5 18 45	6 0 43	6 12 37	6 24 28	7 6 17	7 18 7
31	14 7	8 0 0	8 11 59	8 24 9	9 6 35	9 19 20	10 2 31	10 16 10
Nov. 7	21 7	11 0 18	11 14 55	11 29 55	0 15 11	1 0 30	1 15 43	2 0 40
14	28 7	2 15 13	2 29 18	3 12 56	3 26 8	4 8 57	4 21 27	5 3 43
21	5 8	5 15 48	5 27 45	6 9 38	6 21 28	7 3 18	7 15 10	7 27 5
28	12 8	8 9 5	8 21 12	9 3 30	9 16 1	9 28 48	10 11 56	10 25 26
Dec 5	19 8	11 9 22	11 23 41	0 8 23	0 23 22	1 8 29	1 23 36	2 8 34
12	26 8	2 23 13	3 7 28	3 21 17	4 4 38	4 17 35	5 0 10	5 12 26
19	3 9	5 24 30	6 6 25	6 18 15	7 0 4	7 11 55	7 23 52	8 5 55
26	10 9	8 19 8	9 0 30	9 13 4	9 25 51	10 8 52	10 22 8	11 5 40
Jan. 2	17 9	11 19 28	0 3 34	0 17 54	1 2 27	1 17 8	2 1 52	2 16 31

Ayanamsa on 1st Jan : 23° 13′ 14″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ नि	गु ♃ रु	मं ♂ ल	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	26	8	6 14 16	1 R25 48	6 13 43	8 16 49	8 9 53	8 8s47	8 10 21
3	28	8	6 14 25	1 25 34	6 14 54	8 18 51	8 12 24	8 11 55	8 13 30
5	30	8	6 14 33	1 25 20	6 16 06	8 20 54	8 14s55	8 15 04	8 16 39
7	3	9	6 14 42	1 25 07	6 17 17	8 22 56	8 17 26	8 18 15	8 19 51
9	5	9	6 14 50	1 24 55	6 18 28	8 24 59	8 19 57	8 21 27	8 23 04
11	7	9	6 14 57	1 24 43	6 19 39	8 27 01	8 22 28	8 24 41	8 26 19
13	9	9	6 15 04	1 24 32	6 20 49	8 29 03	8 24 59	8 27 57	8 29⊙36
15	11	9	6 15 11	1 24 21	6 22 00	9 1 05	8 27 30	9 1 15	9 2 54
17	13	9	6 15 18	1 24 11	6 23 10	9 3 07	9 0 01	9 4 34	9 6 15
19	15	9	6 15 24	1 24 02	6 24 20	9 5 10	9 2 [illegible]	9 7 56	9 9 38
21	17	9	6 15 30	1 23 53	6 25 30	9 7 12	9 5 03	9 11 20	9 13 03
23	19	9	6 15 35	1 23 46	6 26 39	9 9 14	9 7 33	9 14 46	9 16 29
25	21	9	6 15 40	1 23 39	6 27 49	9 11 16	9 10 04	9 18 13	9 19 57
27	23	9	6 15 44	1 23 33	6 28 58	9 13 18	9 12 35	9 21 42	9 23 26
29	25	9	6 15 49	1 23 27	7 0 07	9 15 20	9 15⊙06	9 25 11	9 26 56
31	27	9	6 15 52	1 23 22	7 1 15	9 17 21	9 17 36	9 28 40	10 0r24
Feb. 2	29	9	6 15 56	1 23 19	7 2 24	9 19 23	9 20 07	10 2 08	10 3 51
4	1	10	6 15 59	1 23 16	7 3 32	9 21 25	9 22 38	10 5 32	10 7 12
6	3	10	6 16 01	1 23 13	7 4 39	9 23 27	9 25 08	10 8 50	10 10 26
8	5	10	6 16 03	1 23 12	7 5 47	9 25 28	9 27 39	10 11 58	10 13 28
10	8	10	6 16 05	1 D23 11	7 6 54	9 27 30	10 0 09	10 14 53	10 16 14
12	10	10	6 16 06	1 23 12	7 8 00	9 29 31	10 2 40	10 17 29	10 18 38
14	12	10	6 16 07	1 23 13	7 9 06	10 1 32	10 5 10	10 19 40	10 20 35
16	14	10	6 R16 08	1 23 15	7 10 12	10 3 34	10 7 41	10 21 21	10 21 59
18	16	10	6 16 08	1 23 17	7 11 18	10 5 35	10 10 11	10 22 27	10 22 45
20	18	10	6 16 07	1 23 21	7 12 23	10 7 36	10 12 41	10 R22 54	10 22 52
22	19	10	6 16 07	1 23 25	7 13 28	10 9 37	10 15 11	10 22 40	10 22 18
24	21	10	6 16 05	1 23 30	7 14 32	10 11 37	10 17r41	10 21r47	10 21 08
26	23	10	6 16 04	1 23 36	7 15 36	10 13 38	10 20 11	10 20 21	10 19 28
28	25	10	6 16 02	1 23 42	7 16 39	10 15 38	10 22 41	10 18 30	10 17⊙29
Mar. 2	27	10	6 15 59	1 23 50	7 17 42	10 17 39	10 25 11	10 16 26	10 15 23
4	29	10	6 15 57	1 23 58	7 18 45	10 19 39	10 27 41	10 14 21	10 13 22
6	2	11	6 15 53	1 24 06	7 19 46	10 21 40	11 0 11	10 12 26	10 11r36
8	4	11	6 15 50	1 24 16	7 20 48	10 23 40	11 2 40	10 10 50	10 10 10
10	6	11	6 15 46	1 24 26	7 21 48	10 25 40	11 5 10	10 9 37	10 9 11
12	8	11	6 15 41	1 24 37	7 22 48	10 27 39	11 7 39	10 8 51	10 8 37
14	10	11	6 15 37	1 24 48	7 23 47	10 29 39	11 10 08	10 D8 30	10 8 29
16	12	11	6 15 32	1 25 00	7 24 46	11 1 39	11 12 38	10 8 35	10 8 46
18	14	11	6 15 26	1 25 13	7 25 44	11 3 38	11 15 07	10 9 02	10 9 24
20	16	11	6 15 20	1 25 26	7 26 41	11 5 37	11 17 36	10 9 50	10 10 21
22	18	11	6 15 14	1 25 40	7 27 37	11 7 36	11 20 05	10 10 57	10 11 36
24	20	11	6 15 08	1 25 55	7 28 33	11 9 35	11 22 34	10 12 19	10 13 06
26	21	11	6 15 01	1 26 10	7 29 28	11 11 34	11 25 02	10 13 57	10 14 50
28	23	11	6 14 54	1 26 26	8 0 21	11 13 33	11 27 31	10 15 46	10 16 46
30	25	11	6 14 47	1 26 42	8 1 14	11 15 32	0 0 00	10 17 48	10 18 52
Apr. 1	28	11	6 14 40	1 26 58	8 2 06	11 17 30	0 2 28	10 20 00	10 21 09
3	30	11	6 14 32	1 27 16	8 2 57	11 19 29	0 4 56	10 22 20	10 23 34
5	2	12	6 14 24	1 27 33	8 3 47	11 21 27	0 7 25	10 24 50	10 26 08
7	5	12	6 14 16	1 27 52	8 4 35	11 23 25	0 9 53	10 27 27	10 28 49
9	7	12	6 14 08	1 28 10	8 5 23	11 25 23	0 12 21	11 0 12	11 1 37
11	9	12	6 13 59	1 28 29	8 6 09	11 27 21	0 14 49	11 3 04	11 4 33
13	11	12	6 13 51	1 28 49	8 6 54	11 29 18	0 17 16	11 6 03	11 7 35
15	13	12	6 13 42	1 29 09	8 7 37	0 1 16	0 19 44	11 9 08	11 10 44
17	14	12	6 13 33	1 29 29	8 8 19	0 3 13	0 22 11	11 12 21	11 13 5

1954 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan : 23° 13′ 14″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		मू ♄ व	हृ ♃ यु	स्व ♂ अ	र ☉ व	शु ♀ ब	बु ☿ व	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	14	12	6R13 33	1 29 29	8 8 19	0 3 13	0 22 11	11 12 21	11 13 59
19	16	12	6 13 24	1 29 50	8 9 00	0 5 11	0 24 39	11 15 30	11 17 21
21	18	12	6 13 15	2 0 11	8 9 39	0 7 08	0 27 06	11 19 04	11 20 49
23	20	12	6 13 06	2 0 33	8 10 16	0 9 05	0 29 33	11 22 36	11 24 25
25	32	12	6 12 57	2 0 55	8 10 52	0 11 02	1 2 00	11 26 15	11 28 07
27	24	12	6 12☌48	2 1 17	8 11 25	0 12 58	1 4 26	0 0 00	0 1s55
29	26	12	6 12 39	2 1 40	8 11 57	0 14 55	1 6 53	0 3 52	0 5 50
May 1	28	12	6 12 30	2 2 03	8 12 27	0 16 52	1 9 20	0 7 50	0 9 52
3	1	1	6 12 21	2 2 26	8 12 55	0 18 48	1 11 46	0 11 55	0 14 00
5	3	1	6 12 12	2 2 49	8 13 20	0 20 44	1 14 12	0 16 06	0 18 13
7	5	1	6 12 03	2 3 13	8 13 43	0 22 41	1 16 39	0 20 21	0 22☌31
9	7	1	6 11 54	2 3 37	8 14 04	0 24 37	1 19 04	0 24 41	0 26 51
11	9	1	6 11 45	2 4 01	8 14 23	0 26 33	1 21 30	0 29 02	1 1 12
13	11	1	6 11 37	2 4 26	8 14 39	0 28 29	1 23 56	1 3 23	1 5 32
15	13	1	6 11 28	2 4 51	8 14 52	1 0 24	1 26 21	1 7 41	1 9 49
17	15	1	6 11 20	2 5 15	8 15 03	1 2 20	1 28 47	1 11 55	1 14 00
19	17	1	6 11 12	2 5 41	8 15 11	1 4 15	2 1 12	1 16r03	1 18 03
21	18	1	6 11 04	2 6 06	8 15 16	1 6 11	2 3 37	1 20 02	1 21 58
23	20	1	6 10 56	2 6 32	8R15 18	1 8 06	2 6 02	1 23 51	1 25 42
25	22	1	6 10 49	2 6 57	8 15 18	1 10 02	2 8 26	1 27 29	1 29 15
27	25	1	6 10 42	2 7 23	8 15 14	1 11 57	2 10 51	2 0 57	2 2 36
29	27	1	6 10 35	2 7 49	8 15 07	1 13 52	2 13 15	2 4 13	2 5 46
31	29	1	6 10 28	2 8 15	8 14 57	1 15 47	2 15 39	2 7 16	2 8 43
June 2	1	2	6 10 21	2 8 42	8 14 44	1 17 42	2 18 03	2 10 07	2 11 28
4	4	2	6 10 15	2 9 08	8 14 28	1 19 37	2 20 27	2 12 45	2 13 59
6	6	2	6 10 10	2 9 35	8 14 10	1 21 32	2 22 51	2 15 10	2 16 18
8	8	2	6 10 04	2 10 02	8 13 48	1 23 27	2 25 14	2 17 32	2 18 23
10	9	2	6 9 59	2 10 28	8 13 24	1 25 22	2 27 37	2 19 20	2 20 14
12	11	2	6 9 54	2 10 55	8 12 57	1 27 16	3 0 00	2 21 03	2 21 49
14	13	2	6 9 50	2 11 22	8 12 28	1 29 11	3 2 23	2 22 31	2 23 09
16	15	2	6 9 46	2 11 49	8 11 57	2 1 05	3 4 45	2 23 43	2 24 12
18	17	2	6 9 42	2 12s16	8 11 25	2 3 00	3 7 07	2 24 38	2 24 58
20	19	2	6 9 38	2 12 43	8 10 50	2 4 54	3 9 29	2 25 15	2 25 26
22	21	2	6 9 35	2 13 10	8 10 15	2 6 49	3 11 51	2 25 34	2R25 36
24	23	2	6 9 33	2 13 38	8 9 38	2 8 43	3 14 13	2 25 35	2 25 28
26	25	2	6 9 30	2 14 05	8 9 01	2 10 38	3 16 34	2 25 17	2 25 02
28	28	2	6 9 29	2 14 32	8 8 24	2 12 32	3 18 55	2 24 43	2 24s21
30	30	2	6 9 27	2 14☌59	8 7 46	2 14 27	3 21 15	2 23 54	2 23 25
July 2	2	3	6 9 26	2 15 27	8 7 10	2 16 21	3 23 36	2 22 53	2 22 19
4	4	3	6 9 25	2 15 54	8 6 34	2 18 16	3 25 56	2 21 43	2 21 06
6	6	3	6 9 25	2 16 21	8 6 00	2 20 10	3 28 15	2 20☌29	2 19 52
8	8	3	6D9 25	2 16 48	8 5 27	2 22 05	4 0 35	2 19 16	2 18 41
10	10	3	6 9 26	2 17 15	8 4 56	2 23 59	4 2 54	2 18 09	2 17 39
12	12	3	6 9 26	2 17 43	8 4 28	2 25 53	4 5 13	2 17 13	2 16 50
14	14	3	6 9 28	2 18r10	8 4 02	2 27 48	4 7 31	2 16r31	2 16 17
16	15	3	6 9 29	2 18 37	8 3 39	2 29 42	4 9 49	2 16 08	2D16 04
18	18	3	6 9 31	2 19 03	8 3 18	3 1 37	4 12 06	2 16 05	2 16 11
20	20	3	6 9 34	2 19 30	8 3 01	3 3 31	4 14 23	2 16 24	2 16 42
22	22	3	6 9 37	2 19 57	8 2 46	3 5 26	4 16 40	2 17 05	2 17 35
21	24	3	6 9 40	2 20 24	8 2 35	3 7 20	4 18 56	2 18 10	2 18 51
26	26	3	6 9 43	2 20 50	8 2 27	3 9 15	4 21 11	2 19 38	2 20 29
28	28	3	6 9 47	2 21 16	8 2 23	3 11 10	4 23 26	2 21 28	2 22 31
30	1	4	6 9 52	2 21 43	8D2 22	3 13 04	4 25 41	2 23 39	2 24 53
Aug. 1	3	4	6 9 56	2 22 09	8 2 24	3 14 50	4 27 55	2 26 12	2 27 36

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 13′ 14″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	3	4	6 9 56	2 22 09	8 2 24	3 14 59	4 27 55	2 26 12.	2 27 36
3	5	4	6 10 01	2 22 35	8 2 30	3 16 54	5 0 08	2 29 04	3 0 37
5	6	4	6 10 07	2 23 01	8 2 39	3 18 49	5 2 21	3 2 15	3 3 56
7	8	4	6 10 13	2 23 26	8 2 51	3 20 44	5 4 34	3 5 41	3 7 29
9	10	4	6 10 19	2 23 52	8 3 07	3 22 39	5 6.45	3 9 20	3 11s14
11	12	4	6 10 25	2 24 17	8 3 25	3 24 34	5 8 56	3 13 11	3 15 09
13	14	4	6 10 32	2 24 42	8 3 47	3 26 29	5 11 06	3 17 08	3 19 09
15	16	4	6 10 39	2 25 07	8 4 12	3 28 24	5 13 15	3 21 10	3 23 12
17	18	4	6 10 47	2 25 31	8 4 39	4 0 20	5 15 23	3 25 14	3 27 17
19	21	4	6 10 54	2 25 56	8 5 09	4 2 15	5 17 31.	3 29 18	4 1 19
21	23	4	6 11 03	2 26 20	8 5 42	4 4 11	5 19 38	4 3☉20	4 5 20
23	25	4	6 11 11	2 26 44	8 6 17	4 6 06	5 21 43	4 7 18	4 9 16
25	27	4	6 11 20	2 27 07	8 6 55	4 8 02	5 23 48	4 11 12	4 13 08
27	29	4	6 11 29	2 27 31	8 7 35	4 9 58	5 25 51	4 15 02	4 16 55
29	1	5	6 11 38	2 27 54	8 8 17	4 11 54	5 27 54	4 18 46	4 20 37
31	3.	5	6 11 48	2 28 16	8 9 02	4 13 50	5 29 55	4 22 26	4 24 14
Sept. 2	5	5	6 11 58	2 28 39	8 9 49	4 15 46	6 1 55	4 26 00	4 27 45
4	7	5	6 12 08	2 29 01	8 10 37	4 17 42	6 3 53	4 29r30	5 1 12
6	8	5	6 12 18	2 29 23	8 11 28	4 19 38	6 5 50	5 2 54	5 4 34
8	10	5	6 12 29	2 29 44	8 12 21	4 21 35	6 7 45	5 6 14	5 7 52
10	12	5	6 12 40	3 0 05	8 13 15	4 23 31	6 9 39	5 9 29	5 11 05
12	15	5	6 12 51	3 0 26	8 14 11	4 25 28	6 11 30	5 12 39	5 14 13
14	17	5	6 13 02	3 0 46	8 15 08	4 27 25	6 13 20	5 15 45	5 17 17
16	19	5	6 13 14	3 1 06	8 16 07	4 29 22	6 15 07	5 18 47	5 20 16
18	21	5	6 13 26	3 1 25	8 17 03	5 1 19	6 16 52	5 21 44	5 23 11
20	24	5	6 13 38	3 1 44	8 18 10	5 3 16	6 18 35	5 24 37	5 26 02
22	26	5	6 13 50	3 2 03	8 19 13	5 5 13	6 20 15	5 27 25	5 28 48
24	28	5	6 14 02	3 2 21	8 20 17	5 7 11	6 21 52	6 0 09	6 1 28
26	30	5	6 14 15	3 2 38	8 21 23	5 9 08	6 23 26	6 2 47	6 4 04
28	1	6	6 14 27	3 2 55	8 22 30	5 11 06	6 24 57	6 5 20	6 6 34
30	3	6	6 14 40	3 3 12	8 23 38	5 13 04	6 26 24	6 7 47	6 8 58
Oct. 2	5	6	6 14 53	3 3 28	8 24 47	5 15 02	6 27 47	6 10 07	6 11 14
4	7	6	6 15 07	3 3 44	8 25 57	5 17 00	6 29 06	6 12 19	6 13 22
6	9	6	6 15 20	3 3 59	8 27 08	5 18 58	7 0 20	6 14 22	6 15 20
8	11	6	6 15 33	3 4 13	8 28 20	5 20 57	7 1 29	6 16 15	6 17 06
10	13	6	6 15 47	3 4 27	8 29 33	5 22 55	7 2 33	6 17 55	6 18 39
12	15	6	6 16 01	3 4 40	9 0 46	5 24 54	7 3 31	6 19 20	6 19 56
14	18	6	6 16 15	3 4 53	9 2 01	5 26 53	7 4 22	6 20 27	6 20 52
16	20	6	6 16 29	3 5 05	9 3 16	5 28 52	7 5 06	6 21 12	6 21 25
18	22	6	6 16 43	3 5 16	9 4 32	6 0 51	7 5 44	6R21 31	6 21 30
20	24	6	6 16 57	3 5 27	9 5 48	6 2 50	7 6 13	6 21 21	6 21 03
22	26	6	6 17s11	3 5 37	9 7 06	6 4 49	7 6 34	6 20 37	6 20 02
24	28	6	6 17 25	3 5 47	9 8 23	6 6 49	7 6 46	6 19 18	6 18s25
26	30	6	6 17 39	3 5 55	9 9 42	6 8 48	7R 6 50	6 17 25	6 16 18
28	2	7	6 17 54	3 6 04	9 11 01	6 10 48	7 6 43	6 15 05	6 13☉49
30	3	7	6 18 08	3 6 11	9 12 20	6 12 48	7 6 27	6 12 32	6 11 16
Nov. 1	5	7	6 18 22	3 6 17	9 13 40	6 14 48	7 6 02	6 10 03	6 8 57
3	7	7	6 18 37	3 6 23	9 15 00	6 16 48	7 5 27	6 7 57	6 7 08
5	9	7	6 18☉51	3 6 28	9 16 22	6 18 48	7 4 42	6 6r29	6 6 01
7	11	7	6 19 06	3 6 33	9 17 43	6 20 49	7 3 50	6 5 45	6D5 41
9	14	7	6 19 20	3 6 36	9 19 05	6 22 49	7 2 50	6 5 47	6 6 05
11	16	7	6 19 34	3 6 39	9 20 27	6 24 50	7 1s44	6 6 32	6 7 08
13	18	7	6 19 49	3 6 41	9 21 50	6 26 50	7 0 31	6 7 52	6 8 43
15	21	7	6 20 03	3 6 42	9 23 13.	6 28 51	6 29☉21	6 9 40	6 10 43

Date	Tithi & Month	Nirayana Longitudes at 5-30 A.M. I.S.T.						
		श ♄ न	बृ ♃ गु	मं ♂ भ	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	21 7	6 20 03	3 6 42	9 23 13	6 28 51	6R29⊙21	6 9 40	6 10 43
17	23 7	6 20 17	3R 6 43	9 24 36	7 0 52	6 28 08	6 11 51	6 13 03
19	25 7	6 20r32	3 6 42	9 25 59	7 2 53	6 26r57	6 14 18	6 15 37
21	26 7	6 20 46	3 6 41	9 27 23	7 4 54	6 25 49	6 16 58	6 18 21
23	28 7	6 21 00	3 6 39	9 28 47	7 6 56	6 24 47	6 19 46	6 21 12
25	30 7	6 21 14	3 6 37	10 0 11	7 8 57	6 23 51	6 22 40	6 24 09
27	2 8	6 21 28	3 6 33	10 1 35	7 10 58	6 23 04	6 25 38	6 27 08
29	4 8	6 21 42	3 6 28	10 3 00	7 13 00	6 22 25	6 28 39	7 0 11
Dec. 1	6 8	6 21 55	3 6 23	10 4 25	7 15 02	6 21 56	7 1 43	7 3 15
3	8 8	6 22 09	3 6 17	10 5 50	7 17 03	6 21 37	7 4 47	7 6 19
5	10 8	6 22 22	3 6 11	10 7 15	7 19 05	6 21 27	7 7s52	7 9 25
7	12 8	6 22 36	3 6 03	10 8 41	7 21 07	6D21 27	7 10 58	7 12 31
9	14 8	6 22 49	3 5 55	10 10 06	7 23 09	6 21 37	7 14 04	7 15 37
11	17 8	6 23 02	3 5 46	10 11 32	7 25 10	6 21 56	7 17 11	7 18 44
13	19 8	6 23 15	3 5 37	10 12 57	7 27 12	6 22 24	7 20 18	7 21 51
15	21 8	6 23 27	3 5 27	10 14 23	7 29 14	6 23 01	7 23 25	7 24 58
17	23 8	6 23 40	3 5 16	10 15 49	8 1 16	6 23 45	7 26 32	7 28 06
19	25 8	6 23 52	3 5 04	10 17 15	8 3 19	6 24 36	7 29 40	8 1 15
21	27 8	6 24 04	3 4 52	10 18 41	8 5 21	6 25 35	8 2 49	8 4 24
23	28 8	6 24 16	3 4 40	10 20 07	8 7 23	6 26 39	8 5 59	8 7 34
25	30 8	6 24 28	3 4 26	10 21 33	8 9 25	6 27 50	8 9⊙09	8 10 44
27	2 9	6 24 39	3 4 13	10 22 59	8 11 28	6 29 06	8 12 20	8 13 56
29	4 9	6 24 50	3 3 59	10 24 26	8 13 30	7 0 27	8 15 32	8 17 09
31	6 9	6 25 01	3 3 44	10 25 52	8 15 32	7 1 51	8 18 46	8 20 22
Jan. 2	8 9	6 25 12	3 3 29	10 27 18	8 17 35	7 3 21	8 22 00	8 23 38

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	9 0 44	9 1 32	2R 28 18	6 2 39	4R 1 32	23 13 14
February	1	9 0 47	8 29 53	2 26 59	6R 2 50	4 0 53	23 13 19
March	1	8 29 56	8 28 24	2 26 6	6 2 33	4 0 10	23 13 23
April	1	8 27 9	8 26 46	2D25 48	6 1 52	4 29 32	23 13 26
May	1	8 23 54	8 25 10	2 26 18	6 1 3	4 29 19	23 13 29
June	1	8 21 55	8 23 32	2 27 32	6 0 22	4D29 29	23 13 34
July	1	8 21 35	8 21 56	2 29 12	6 0 4	4 0 3	23 13 40
August	1	8 21 34	8 20 18	3 1 5	6D 0 15	4 0 55	23 13 45
September	1	8 20 18	8 18 39	3 2 47	6 0 55	3 1 55	23 13 49
October	1	8 17 23	8 17 3	3 3 59	6 1 53	3 2 46	23 13 52
November	1	8 14 7	8 15 25	3 4 28	6 3 2	3 3 22	23 13 55
December	1	8 12 32	8 13 50	3R 4 9	6 4 2	3R 3 33	23 14 0
January	1	8 12 27	8 12 11	3 3 6	6 4 46	3 3 18	23 14 6

Combustion or Heliacal Setting of Planets

Saturn : From Oct. 19 to Nov. 18
Jupiter : From June 17 to July 13.
Mars : — —
Venus : From Jan. 1 to Feb. 23, Nov. 7 to Nov. 19.
Mercury : Upto Feb. 1 then from Feb. 24 to Mar. 7, Apr. 28 to May 19, June 29 to July 14, Aug. 10 to Sept. 4, Oct. 25 to Nov. 5, Dec. 5 to Jan. 14 ('55).

Retrogression of Planets

PLANET	RETROGRADE Date		h	m	Long. s ° ′	DIRECT Date		h	m	Long. s ° ′
Mercury	Feb.	20,	12	57	10 22 54	Mar.	14,	20	37	10 8 29
	June	23,	7	39	2 25 36	July	17,	12	8	2 16 4
	Oct.	18,	13	38	6 21 31	Nov	7,	27	4	6 5 40
Venus	Oct.	25,	22	18	7 6 50	Dec.	5,	28	7	6 21 26
Mars	May	23,	18	3	8 15 18	July	29,	20	48	8 2 22
Jupiter	—		—		—	Feb.	10,	14	30	1 23 11
	Nov.	17,	7	30	3 6 43	—		—		—
Saturn	Feb.	17,	9	30	6 16 8	July	6,	20	56	6 9 25
Uranus	—		—		—	Mar.	27,	22	7	2 25 47
	Nov.	3,	12	53	3 4 28	—		—		—
Neptune	Jan.	27,	11	9	6 2 51	July	5,	8	30	6 0 4
Pluto	—		—		—	May	4,	16	0	3 29 19
	Nov.	28,	9	0	4 3 33	—		—		—

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	6	7	51	Pauṣa	Sukla	Jan.	19	8	7	Māgha	Vadi
Feb.	3	21	25	Māgha	,,	Feb.	17	24	47	Phālguna	,,
Mar.	5	8	41	Phālguna	,,	Mar.	19	18	12	Caitra	,,
Apr.	3	17	55	Caitra	,,	Apr.	18	11	18	Vaiśākha	,,
May	2	25	52	Vaiśākha	,,	May	17	27	17	Jyaiṣṭha	,,
June	1	9	33	Jyaiṣṭha	,,	June	16	17	36	Āṣāḍha	,,
June	30	17	56	Āṣāḍha	,,	July	16	5	59	Śrāvaṇa	,,
July	29	27	50	Śrāvaṇa	,,	Aug.	14	16	33	Bhādra	,,
Aug.	28	15	51	Bhādra	,,	Sept.	12	25	49	Āśvina	,,
Sept.	27	6	20	Āśvina	,,	Oct.	12	10	40	Kārtika	,,
Oct.	26	23	17	Kārtika	,,	Nov.	10	19	59	Agraha	,,
Nov.	25	18	0	Agrahā	,,	Dec.	10	6	26	Pauṣa	,,
Dec.	25	13	3	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	27	52	Karkaṭa	on	July	16	12	57
Kumbha	on	Feb.	12	16	54	Siṁha	on	Aug.	16	21	19
Mīna	on	Mar.	14	13	52	Kanyā	on	Sept.	16	21	11
Meṣa	on	Apr.	13	22	28	Tulā	on	Oct.	17	9	5
Vṛṣa	on	May	14	19	25	Vṛścika	on	Nov.	16	8	50
Mithuna	on	June	14	26	4	Dhanus	on	Dec.	15	23	26

1955 A.D. Longitude of Moon CONDENSED

Saka era 1876-77, Samvat 2011-12 (Mar. 25, Nov. 15), B.S 1361-62 (Apr. 15).
Kollam era 1130-31 (Aug. 17), 29 Manmatha (Mar. 25, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ५) at 5-30 A.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec 26	10	9	8 18 8	9 0 30	9 13 4	9 25 51	10 8 52	10 22 8	11 5 40
Jan 2	17	9	11 19 28	0 8 34	0 17 54	1 2 27	1 17 8	2 1 52	2 16 31
9	24	9	3 1 0	3 15 12	3 29 2	4 12 29	4 25 32	5 8 12	5 20 33
16	2	10	6 2 39	6 14 35	6 26 25	7 8 14	7 20 7	8 2 8	8 14 20
23	9	10	8 26 46	9 9 26	9 22 22	10 5 33	10 18 58	11 2 35	11 16 22
30	16	10	0 0 17	0 14 20	0 28 28	1 12 40	1 26 55	2 11 9	2 25 20
Feb 6	23	10	3 9 24	3 23 17	4 6 56	4 20 16	5 3 16	5 15 57	5 28 20
13	1	11	6 10 28	6 22 24	7 4 15	7 16 4	7 27 58	8 10 1	8 22 18
20	8	11	9 4 53	9 17 47	10 1 3	10 14 38	10 28 31	11 12 36	11 26 48
27	15	11	0 11 4	0 25 18	1 9 29	1 23 34	2 7 32	2 21 25	3 5 10
Mar 6	22	11	3 18 47	4 2 14	4 15 30	4 28 33	5 11 22	5 23 55	6 6 13
13	29	11	6 18 19	7 0 14	7 12 4	7 23 53	8 5 45	8 17 48	9 0 5
30	6	12	9 12 43	9 25 44	10 9 11	10 23 2	11 7 16	11 21 47	0 6 27
27	13	12	0 21 8	1 5 44	1 20 10	2 4 22	2 18 20	3 2 3	3 15 32
Apr. 3	20	12	3 28 49	4 11 55	4 24 49	5 7 31	5 20 2	6 2 22	6 14 32
10	27	12	6 26 31	7 8 24	7 20 12	8 2 0	8 13 52	8 25 53	9 8 8
17	3	1	9 20 44	10 3 44	10 17 12	11 1 8	11 15 30	0 0 14	0 15 13
24	10	1	1 0 16	1 15 14	2 0 0	2 14 28	2 28 36	3 12 23	3 25 49
May 1	17	1	4 8 57	4 21 49	5 4 27	5 16 53	5 29 9	6 11 15	6 23 15
8	24	1	7 5 8	7 16 57	7 28 44	8 10 33	8 22 27	9 4 29	9 16 45
15	31	1	9 29 19	10 12 16	10 25 39	11 9 29	11 23 47	0 8 30	0 23 31
22	7	2	1 8 42	1 23 53	2 8 55	2 23 39	3 8 1	3 21 58	4 5 30
29	14	2	4 18 39	5 1 27	5 13 57	5 26 14	6 8 19	6 20 16	7 2 8
June 5	21	2	7 13 57	7 25 45	8 7 35	8 19 28	9 1 28	9 13 37	9 25 59
12	28	2	10 8 36	10 21 32	11 4 51	11 18 33	0 2 40	0 17 11	1 2 0
19	4	3	1 17 3	2 2 12	2 17 16	3 2 7	3 16 39	4 0 46	4 14 26
26	11	3	4 27 40	5 10 30	5 23 0	6 5 13	6 17 13	6 29 6	7 10 54
July 3	18	3	7 22 42	8 4 32	8 16 27	8 28 30	9 10 41	9 23 3	10 5 38
10	25	3	10 18 26	11 1 29	11 14 50	11 28 28	0 12 25	0 26 40	1 11 12
17	32	3	1 25 56	2 10 47	2 25 39	3 10 24	3 24 53	4 9 2	4 22 46
24	7	4	5 6 4	5 18 57	6 1 29	6 13 42	6 25 41	7 7 33	7 19 21
31	14	4	8 1 10	8 13 4	8 25 7	9 7 21	9 19 47	10 2 27	10 15 21
Aug. 7	21	4	10 28 27	11 11 47	11 25 19	0 9 2	0 22 56	1 7 1	1 21 16
14	28	4	2 5 39	2 20 7	3 4 37	3 19 1	4 3 16	4 17 14	5 0 52
21	4	5	5 14 8	5 27 1	6 9 32	6 21 46	7 3 45	7 15 37	7 27 25
28	11	5	8 9 16	8 21 13	9 3 23	9 15 47	9 28 28	10 11 27	10 24 43
Sept. 4	18	5	11 8 14	11 21 57	0 5 49	0 19 48	1 3 51	1 17 56	2 2 3
11	25	5	2 16 10	3 0 17	3 14 21	3 28 21	4 12 11	4 25 49	5 9 12
18	1	6	5 22 16	6 5 1	6 17 28	6 29 39	7 11 38	7 23 29	8 5 16
25	8	6	8 17 7	8 29 6	9 11 18	9 23 48	10 6 39	10 19 52	11 3 26
Oct. 2	15	6	11 17 20	0 1 29	0 15 48	1 0 11	1 14 33	1 28 50	2 13 1
9	22	6	2 27 4	3 10 59	3 24 44	4 8 20	4 21 46	5 5 0	5 18 0
16	29	5	6 0 47	6 13 19	6 25 36	7 7 42	7 19 37	8 1 26	8 13 12
23	5	7	8 25 2	9 6 59	9 19 10	10 1 39	10 14 31	10 27 48	11 11 31
30	12	7	11 25 38	0 10 6	0 24 48	1 9 37	1 24 24	2 9 4	2 23 32
Nov 6	19	7	3 7 44	3 21 59	4 5 17	4 18 39	5 1 46	5 14 38	5 27 18
13	26	7	6 9 45	6 22 1	7 4 7	7 16 4	7 27 55	8 9 42	8 21 29
20	4	8	9 3 18	9 15 15	9 27 23	10 9 48	10 22 34	11 5 45	11 19 24
27	10	8	0 3 30	0 18 1	1 2 53	1 17 58	2 3 7	2 18 11	3 3 1
Dec 4	18	8	3 17 32	4 1 40	4 15 23	4 28 43	5 11 41	5 24 21	6 6 46
11	25	8	6 18 58	7 1 0	7 12 55	7 24 46	8 6 34	8 18 21	9 0 10
18	2	9	9 12 3	9 24 3	10 6 14	10 18 37	11 1 19	11 14 22	11 27 48
25	9	9	0 11 42	0 26 1	1 10 45	1 25 47	2 11 1	2 26 17	3 11 23
Jan 1	16	9	3 26 12	4 10 36	4 24 33	5 8 0	5 21 1	6 3 39	6 15 58

Ayanamsa on 1st Jan : 23° 14′ 06″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	7	9	6	25	6	3R	3	37	10	26	35	8	16	34	7	2	36	8	20s	22	8	22	00
3	9	9	6	25	17	3	3	22	10	28	01	8	18	36	7	4	08	8	23	38	8	25	16
5	11	9	6	25	27	3	3	07	10	29	27	8	20	38	7	5	43	8	26	54	8	28	33
7	14	9	6	25	37	3	2	51	11	0	53	8	22	40	7	7	21	9	0	12	9	1	51
9	16	9	6	25	47	3	2	35	11	2	19	8	24	43	7	9	03	9	3	30	9	5	10
11	18	9	6	25	56	3	2	19	11	3	46	8	26	45	7	10	48	9	6	50	9	8	29
13	20	9	6	26	06	3	2	03	1	5	12	8	28	47	7	12	36	9	10	09	9	11s	49
15	22	9	6	26	14	3	1	47	11	6	38	9	0	49	7	14	27	9	13	28	9	15	07
17	24	9	6	26	23	3	1	31	11	8	04	9	2	52	7	16	19	9	16	45	9	18	22
19	26	9	6	26	31	3	1	15	11	9	30	9	4	54	7	18	14	9	19	59	9	21	34
21	28	9	6	26	39	3	0	59	11	10	56	9	6	56	7	20	11	9	23	07	9	24	38
23	29	9	6	36	46	3	0	43	11	12	21	9	8	58	7	22	10	9	26	06	9	27	32
25	1	10	6	26	54	3	0	27	11	13	47	9	11	00	7	24	10	9	28	53	10	0	11
27	3	10	6	27	00	3	0	12	11	15	13	9	13	02	7	26	12	10	1	23	10	2	29
29	6	10	6	27	07	2	29	56	11	16	39	9	15	04	7	28	16	10	3	29	10	4	21
31	8	10	6	27	13	2	29	41	11	18	04	9	17	06	8	0	20	10	5	06	10	5	41
Feb. 2	10	10	6	27	18	2	29	27	11	19	30	9	19	08	8	2	27	10	6	06	10R	6	21
4	12	10	6	27	24	2	29	13	11	20	55	9	21	10	8	4	34	10	6	25	10	6	17
6	14	10	6	27	29	2	28	59	11	22	20	9	23	11	8	6	42	10	6	00	10	5s	31
8	16	10	6	27	33	2	28	46	11	23	46	9	25	13	8	8	52	10	4	52	10	4	04
10	19	10	6	27	37	2	28	33	11	25	11	9	27	14	8	11	02	10	3	08	10	2	06
12	20	10	6	27	41	2	28	21	11	26	36	9	29	16	8	13	14	10	0	59	9	29	50
14	22	10	6	27	44	2	28	09	11	28	01	10	1	17	8	15	26	9	28	40	9	27	31
16	24	10	6	27	47	2	27	58	11	29	25	10	3	18	8	17	39	9	26	25	9	25	23
18	26	10	6	27	50	2	27	48	0	0	50	10	5	19	8	19	53	9	24	26	9	23r	37
20	28	10	6	27	52	2	27	38	0	2	15	10	7	20	8	22	08	9	22	53	9	22	17
22	30	10	6	27	54	2	27	29	0	3	39	10	9	21	8	24	23	9	21	49	9	21	28
24	2	11	6	27	55	2	27	21	0	5	03	10	11	22	8	26	39	9	21	14	9D	21	08
26	4	11	6	27	56	2	27	13	0	6	28	10	13	23	8	28	55	9	21	08	9	21	15
28	6	11	6R	27	56	2	27	06	0	7	52	10	15	23	9	1	12	9	21	28	9	21	47
Mar. 2	9	11	6	27	56	2	27	00	0	9	16	10	17	24	9	3	29	9	22	11	9	22	41
4	11	11	6	27	56	2	26	55	0	10	39	10	19	24	9	5	47	9	23	14	9	23	53
6	13	11	6	27	55	2	26	50	0	12	03	10	21	24	9	8	05	9	24	34	9	25	20
8	15	11	6	27	54	2	26	46	0	13	27	10	23	24	9	10	24	9	26	09	9	27	02
10	17	11	6	27	53	2	26	43	0	14	50	10	25	24	9	12	43	9	27	59	9	28	58
12	19	11	6	27	51	2	26	41	0	16	13	10	27	24	9	15	03	9	29	59	10	1	03
14	21	11	6	27	48	2	26	39	0	17	37	10	29	24	9	17	23	10	2	09	10	3	18
16	22	11	6	27	45	2D	26	39	0	19	00	11	1	23	9	19	43	10	4	28	10	5	41
18	24	11	6	27	42	2	26	39	0	20	23	11	3	23	9	22	03	10	6	56	10	8	12
20	26	11	6	27	39	2	26	40	0	21	45	11	5	22	9	24	24	10	9	30	10	10	50
22	28	11	6	27	35	2	26	41	0	23	08	11	7	22	9	26	45	10	12	12	10	13	35
24	30	11	6	27	31	2	26	44	0	24	31	11	9	21	9	29	06	10	15	00	10	16	26
26	3	12	6	27	26	2	26	47	0	25	53	11	11	20	10	1	28	10	17	54	10	19	23
28	5	12	6	27	21	2	26	51	0	27	15	11	13	18	10	3	50	10	20	54	10	22	26
30	7	12	6	27	16	2	26	55	0	28	37	11	15	17	10	6	12	10	24	00	10	25	35
Apr. 1	9	12	6	27	10	2	27	01	0	29	59	11	17	16	10	8	34	10	27	11	10	28	49
3	11	12	6	27	04	2	27	07	1	1	21	11	19	14	10	10	56	11	0	28	11	2	09
5	13	12	6	26	58	2	27	13	1	2	43	11	21	12	10	13	19	11	3	51	11	5	35
7	15	12	6	26	51	2	27	21	1	4	04	11	23	10	10	15	41	11	7	20	11	9	06
9	17	12	6	26	44	2	27	29	1	5	26	11	25	08	10	18	01	11	10	54	11	12	43
11	19	12	6	26	37	2	27	38	1	6	47	11	27	06	10	20	27	11	14	34	11	16s	27
13	21	12	6	26	30	2	27	48	1	8	08	11	29	04	10	22	50	11	18	21	11	20	16
15	23	12	6	26	22	2	27	58	1	9	29	0	1	01	10	25	14	11	22	13	11	24	12
17	24	12	6	26	15	2	28	09	1	10	50	0	2	59	10	27	37	11	26	11	11	28	13

Ayanamsa on 1st Jan : 23° 14′ 06″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ न			गु ♃ रु			मं ♂ ग			र ☉ व			शु ♀ क			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr 17	24	12	6R	26	15	2	28	09	1	10	50	0	2	59	10	27	37	11	26s	11	11	28	13
19	27	12	6	26	07	2	28	20	1	12	11	0	4	56	11	0	01	0	0	15	0	2	19
21	29	12	6	25	58	2	28	32	1	13	32	0	6	53	11	2	24	0	4	24	0	6	30
23	1	1	6	25	50	2	28	45	1	14	52	0	8	50	11	4	48	0	8☌	37	0	10	45
25	3	1	6	25	42	2	28	58	1	16	13	0	10	47	11	7	12	0	12	53	0	15	02
27	6	1	6	25	33	2	29	12	1	17	33	0	12	44	11	9	36	0	17	10	0	19	19
29	8	1	6	25	24	2	29	26	1	18	53	0	14	41	11	12	00	0	21	27	0	23	34
May 1	10	1	6	25	15	2	29	41	1	20	13	0	16	37	11	14	24	0	25	40	0	27	44
3	12	1	6	25	06	2	29	56	1	21	33	0	18	34	11	16	48	0	29	47	1	1r	48
5	14	1	6	24	57	3	0	12	1	22	53	0	20	30	11	19	13	1	3	47	1	5	43
7	16	1	6	24	48	3	0	29	1	24	13	0	22	26	11	21	37	1	7	37	1	9	28
9	17	1	6	24	39	3	0	46	1	25	32	0	24	22	11	24	01	1	11	15	1	13	00
11	19	1	6	24	30	3	1	03	1	26	52	0	26	18	11	26	26	1	14	41	1	16	18
13	21	1	6	24	21	3	1	21	1	28	11	0	28	14	11	28	50	1	17	53	1	19	23
15	23	1	6	24	12	3	1	39	1	29	30	1	0	10	0	1	15	1	20	50	1	22	14
17	25	1	6	24	03	3	1	58	2	0	49	1	2	05	0	3	40	1	23	33	1	24	49
19	27	1	6	23	55	3	2	17	2	2	08	1	4	01	0	6	05	1	26	01	1	27	09
21	29	1	6	23	46	3	2	36	2	3	27	1	5	57	0	8	30	1	28	13	1	29	13
23	2	2	6	23	37	3	2	56	2	4	46	1	7	52	0	10	54	2	0	09	2	1	01
25	4	2	6	23	29	3	3	17	2	6	05	1	9	47	0	13	19	2	1	48	2	2	31
27	6	2	6	23	20	3	3	37	2	7	24	1	11	43	0	15	44	2	3	10	2	3	45
29	8	2	6	23	12	3	3	58	2	8	42	1	13	38	0	18	09	2	4	14	2	4	40
31	10	2	6	23	04	3	4	20	2	10	00	1	15	33	0	20	35	2	5	00	2	5	16
June 2	12	2	6	22	56	3	4	41	2	11	19	1	17	28	0	23	00	2	5	28	2R	5	34
4	14	2	6	22	48	3	5	03	2	12	37	1	19	23	0	25	25	2	5	36	2	5	34
6	16	2	6	22	41	3	5	25	2	13	55	1	21	18	0	27	50	2	5	27	2	5	16
8	18	2	6	22	34	3	5	48	2	15	13	1	23	12	1	0	16	2	5s	00	2	4	42
10	20	2	6	22	27	3	6	11	2	16	31	1	25	07	1	2	41	2	4	19	2	3	54
12	21	2	6	22	20	3	6	34	2	17	49	1	27	02	1	5	07	2	3	25	2	2	55
14	23	2	6	22	14	3	6	57	2	19	07	1	28	56	1	7	32	2	2	23	2	1	49
16	26	2	6	22	08	3	7	21	2	20	25	2	0	51	1	9	58	2	1☌	16	2	0	42
18	28	2	6	22	02	3	7	45	2	21	42	2	2	46	1	12	24	2	0	08	1	29	36
20	30	2	6	21	56	3	8	09	2	23	00	2	4	40	1	14	49	1	29	06	1	28	37
22	3	3	6	21	51	3	8	33	2	24	17	2	6	35	1	17	15	1	28	11	1	27	49
24	5	3	6	21	46	3	8	57	2	25	35	2	8	29	1	19	41	1	27r	30	1	27	15
26	7	3	6	21	42	3	9	22	2	26	52	2	10	24	1	22	07	1	27	04	1D	26	57
28	9	3	6	21	37	3	9	47	2	28	10	2	12	18	1	24	33	1	26	55	1	26	57
30	11	3	6	21	34	3	10	12	2	29	27	2	14	13	1	26	59	1	27	05	1	27	17
July 2	13	3	6	21	30	3	10	37	3	0	44	2	16	07	1	29	26	1	27	34	1	27	56
4	14	3	6	21	27	3	11	02	3	2s	01	2	18	01	2	1	52	1	28	23	1	28	55
6	16	3	6	21	24	3	11	28	3	3	18	2	19	56	2	4	18	1	29	31	2	0	18
8	18	3	6	21	22	3	11	53	3	4	35	2	21	50	2	6	45	2	0	59	2	1	50
10	20	3	6	21	20	3	12	19	3	5	52	2	23	44	2	9	11	2	2	46	2	3	46
12	22	3	6	21	18	3	12	45	3	7	09	2	25	39	2	11	38	2	4	51	2	6	01
14	24	3	6	21	17	3	13	11	3	8	26	2	27	33	2	14	05	2	7	15	2	8	33
16	26	3	6	21	16	3	13	37	3	9	43	2	29	28	2	16	32	2	9	55	2	11	22
18	29	3	6	21	16	3	14	03	3	10	59	3	1	22	2	18	58	2	12	53	2	14	27
20	1	4	6D	21	16	3	14	29	3	12	16	3	3	17	2	21	25	2	16	06	2	17	48
22	3	4	6	21	16	3	14s	55	3	13	33	3	5	11	2	23	53	2	19	34	2	21	23
24	5	4	6	21	17	3	15	22	3	14	50	3	7	06	2	26	20	2	23	15	2	25	10
26	7	4	6	21	18	3	15	48	3	16	06	3	9	01	2	28	47	2	27s	07	2	29	07
28	9	4	6	21	19	3	16	14	3	17	23	3	10	55	3	1	14	3	1	08	3	3	11
30	11	4	6	21	21	3	16	41	3	18	39	3	12	50	3	3	42	3	5	15	3	7	20
Aug 1	13	4	6	21	23	3	17	07	3	19	56	3	14	45	3	6	09	3	9	26	3	11	31

Ayanamsa on 1st Jan. : 23° 14′ 06″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	बृ ♃ गु	म ♂ भ	र ☉ वि	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	13	4	6 21 23	3 17s07	3 19s56	3 14 45	3 6 09	3 9s26	3 11 31
3	15	4	6 21 26	3 17 34	3 21 12	3 16 39	3 8 37	3 13 37	3 15 42
5	17	4	6 21 29	3 18∂00	3 22 29	3 18 34	3 11 05	3 17∂47	3 19 51
7	19	4	6 21 32	3 18 27	3 23 45	3 20 29	3 13 33	3 21 55	3 23 57
9	21	4	6 21 36	3 18 53	3 25 02	3 22 24	3 16 00	3 25 58	3 27 58
11	23	4	6 21 40	3 19 19	3 26 18	3 24 19	3 18s29	3 29 56	4 1 53
13	25	4	6 21 45	3 19 46	3 27 34	3 26 14	3 20 57	4 3 49	4 5 43
15	27	4	6 21 50	3 20 12	3 28 51	3 28 10	3 23 25	4 7 36	4 9 28
17	30	4	6 21 55	3 20r38	4 0∂07	4 0 05	3 25 53	4 11 18	4 13r07
19	2	5	6 22 01	3 21 05	4 1 24	4 2 00	3 28 21	4 14 54	4 16 39
21	4	5	6 22 07	3 21 31	4 2 40	4 3 56	4 0 50	4 18 24	4 20 07
23	6	5	6 22 13	3 21 57	4 3 56	4 5 52	4 3 18	4 21 48	4 23 28
25	8	5	6 22 20	3 22 23	4 5 13	4 7 47	4 5 47	4 25 07	4 26 44
27	9	5	6 22 27	3 22 49	4 6 29	4 9 43	4 8 16	4 28 20	4 29 55
29	11	5	6 22 34	3 23 15	4 7 45	4 11 39	4 10 44	5 1 29	5 3 01
31	13	5	6 22 42	3 23 40	4 9 02	4 13 35	4 13 13	5 4 31	5 6 01
Sept. 2	15	5	6 22 50	3 24 06	4 10 18	4 15 31	4 15∂42	5 7 29	5 8 56
4	17	5	6 22 58	3 24 31	4 11 35	4 17 27	4 18 11	5 10 21	5 11 45
6	19	5	6 23 07	3 24 56	4 12 51	4 19 23	4 20 40	5 13 07	5 14 28
8	22	5	6 23 15	3 25 21	4 14 07	4 21 20	4 23 09	5 15 48	5 17 06
10	24	5	6 23 25	3 25 46	4 15 24	4 23 16	4 25 38	5 18 23	5 19 38
12	26	5	23 34	3 26 11	4 16 40	4 25 13	4 28 07	5 20 51	5 22 02
14	28	5	6 23 44	3 26 35	4 17 57	4 27 10	5 0 36	5 23 12	5 24 19
16	30	5	6 23 54	3 27 00	4 19 13	4 29 07	5 3 05	5 25 25	5 26 28
18	2	5	6 24 04	3 27 24	4 20 29	5 1 04	5 5 35	5 27 29	5 28 28
20	4	5	6 24 15	3 27 48	4 21 46	5 3 01	5 8 04	5 29 23	6 0 16
22	6	5	6 24 25	3 28 11	4 23 02	5 4 58	5 10 33	6 1 06	6 1 52
24	8	5	6 24 36	3 28 35	4 24 19	5 6 56	5 13ı03	6 2 35	6 3 13
26	10	5	6 24 48	3 28 58	4 25 36	5 8 53	5 15 32	6 3 48	6 4 18
28	12	5	6 24 59	3 29 21	4 26r52	5 10 51	5 18 02	6 4 42	6 5 02
30	14	5	6 25 11	3 29 43	4 28 09	5 12 49	5 20 31	6 5 15	6 R5 22
Oct. 2	16	5	6 25 23	4 0 06	4 29 25	5 14 47	5 23 01	6 5 23	6 5 16
4	18	5	6 25 35	4 0 27	5 0 42	5 16 45	5 25 30	6 5 02	6 4 41
6	20	5	6 25 47	4 0 49	5 1 59	5 18 43	5 28 00	6 4 11	6 3 34
8	22	5	6 25 59	4 1 10	5 3 15	5 20 41	6 0 29	6 2s48	6 1 56
10	25	5	6 26 12	4 1 31	5 4 32	5 22 40	6 2 59	6 0 57	5 29 52
12	27	5	6 26 25	4 1 52	5 5 49	5 24 39	6 5 28	5 28 43	5 27∂32
14	29	5	6 26 38	4 2 12	5 7 06	5 26 37	6 7 58	5 26 19	5 25 08
16	1	6	6 26 51	4 2 32	5 8 22	5 28 36	6 10 28	5 24 00	5 22 58
18	3	6	6 27 04	4 2 51	5 9 39	6 0 35	6 12 57	5 22 03	5 21 16
20	4	6	6 27 17	4 3 10	5 10 56	6 2 35	6 15 27	5 20r39	5 20 13
22	6	6	6 27 31	4 3 29	5 12 13	6 4 34	6 17 57	5D19 59	5 19 55
24	8	6	6 27 45	4 3 47	5 13 30	6 6 33	6 20 26	5 20 03	5 20 21
26	10	6	6 27 58	4 4 05	5 14 47	6 8 33	6 22 56	5 20 49	5 21 27
28	12	6	6 28 12	4 4 22	5 16 04	6 10 33	6 25 26	5 22 13	5 23 07
30	14	6	6 28 26	4 4 38	5 17 21	6 12 33	6 27 55	5 24 07	5 25 14
Nov. 1	16	6	6 28 40	4 4 55	5 18 38	6 14 32	7 0 25	5 26 25	5 27 41
3	19	6	6 28s54	4 5 10	5 19 56	6 16 33	7 2 54	5 29 01	6 0 24
5	21	6	6 29 08	4 5 25	5 21·13	6 18 33	7 5 24	6 1 50	6 3 18
7	23	6	6 29 22	4 5 40	5 22 30	6 20 33	7 7 54	6 4 47	6 6 19
9	25	6	6 29 37	4 5 54	5 23 47	6 22 34	7 10 23	6 7 51	6 9 25
11	27	6	6 29 51	4 6 08	5 25 05	6 24 34	7 12 53	6 10 59	6 12 34
13	29	6	7 0 05	4 6 20	5 26 22	6 26 35	7 15 23	6 14s09	6 15 45
15	1	7	7 0 19	4 6 33	5 27 40	6 28 36	7 17 52	6 17 20	6 18 56

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1955 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.					
			श ♄ प	वृ ♃ इ	म ♂ ष	र ☉ व	शु ♀ क	बु ☿ बू	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov 15	1	7	7 0s19	4 6 33	5 27 40	6 28 36	7 17 52	6 17s20	6 18 56
17	3	7	7 0☌34	4 6 44	5 28 57	7 0 37	7 20 22	6 20 32	6 22 08
19	5	7	7 0 48	4 6 55	6 0 15	7 2 38	7 22 51	6 23 44	6 25 20
21	6	7	7 1 02	4 7 06	6 1 32	7 4 39	7 25 21	6 26 56	6 28 31
23	8	7	7 1 17	4 7 15	6 2 30	7 6 40	7 27 51	7 0 07	7 1 42
25	10	7	7 1 31	4 7 24	6 4 07	7 8 41	8 0 20	7 3 17	7 4 52
27	12	7	7 1 45	4 7 33	6 5 25	7 10 43	8 2 49	7 6 27	7 8 02
29	15	7	7 1 59	4 7 40	6 6 43	7 12 44	8 5 19	7 9 37	7 11 11
Dec. 1	17	7	7 2r13	4 7 47	6 8 00	7. 14 46	8 7 48	7 12 46	7 14 20
3	19	7	7 2 27	4 7 53	6 9 18	7 16 47	8 10 18	7 15 54	7 17☌29
5	22	7	7 2 41	4 7 59	6 10 36	7 18 49	8 12 47	7 19 03	7 20 37
7	24	7	7 2 55	4 8 03	6 11 54	7 20 51	8 15 16	7 22 11	7 23 45
9	26	7	7 3 09	4 8 07	6 13 12	7 22 53	8 17 46	7 25 20	7 26 54
11	28	7	7 3 23	4 8 10	6 14 30	7 24 55	8 20 15	7 28 28	8 0 03
13	29	7	7 3 36	4 8 13	6 15 48	7 26 57	8 22 44	8 1 37	8 3 12
15	1	8	7 3 50	4 8 15	6 17 06	7 28 59	8 25 13	8 4 46	8 6 21
17	3	8	7 4 03	4R 8 15	6 18 24	8 1 01	8 27 42	8 7 56	8 9 31
19	5	8	7 4 17	4 8 15	6 19 42	8 3 03	9 0 11	8 11 06	8 12 41
21	7	8	7 4 30	4 8 15	6 21 00	8 5 05	9 2 40	8 14 16	8 15 52
23	9	8	7 4 43	4 8 13	6 22 19	8 7 08	9 5 09	8 17 27	8 19 02
25	11	8	7 4 55	4 8 11	6 23 37	8 9 10	9 7 38	8 20 38	8 22r13
27	13	8	7 5 08	4 8 08	6 24 55	8 11 12	9 10 07	8 23 48	8 25 23
29	15	8	7 5 20	4 8 04	6 26 13	8 13 14	9 12 35	8 26 57	8 28 32
31	18	8	7 5 32	4 7 59	6 27 32	8 15 16	9 15 04	9 0 05	9 1 38
Jan. 2	20	8	7 5 44	4 7 54	6 28 50	8 17 19	9 17 32	9 3 10	9 4 41

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam
	s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January 1	8 12 27	8 12 11	3R 3 6	6 4 46	4R 3 18	23 14 6
February 1	8 12 4	8 10 33	3 1 46	6R 5 0	4 2 40	23 14 11
March 1	8 10 9	8 9 4	3 0 47	6 4 46	4 1 56	23 14 14
April 1	8 6 43	8 7 25	3D 0 21	6 4 5	4 1 21	23 14 17
May 1	8 4 5	8 5 50	3 0 45	6 3 17	4 1 4	23 14 21
June 1	8 3 12	8 4 11	3 1 53	6 2 34	4D 1 13	23 14 25
July 1	8 3 15	8 2 36	3 3 30	6 2 14	4 1 45	23 14 30
August 1	8 2 37	8 0 58	3 5 22	6D 2 23	4 2 37	23 14 35
September 1	8 0 15	7 29 18	3 7 9	6 3 0	4 3 37	23 14 39
October 1	7 26 59	7 27 43	3 8 26	6 3 58	4 4 30	23 14 42
November 1	7 24 35	7 26 4	3 9 4	6 5 6	4 5 9	23 14 45
December 1	7 24 2	7 24 29	3R 8 52	6 6 8	4 R 5 22	23 14 50
January 1	7 24 3	7 22 51	3 7 54	6 6 54	4 5 7	23 14 55

Combustion or Heliacal Setting of Planets

Saturn : From Nov. 1 to Nov. 30
Jupiter : From July 20 to Aug. 15
Mars : From June 27 to Sept. 28
Venus : From Aug. 10 to Sept. 28
Mercury : Upto Jan. 14 then from Feb. 7 to Feb. 17, Apr. 1 to May 3, June 8 to June 26, July 15 to Aug. 28, Oct. 4 to Oct. 18, Nov. 13 to Dec. 28.

Retrogression of Planets

PLANET	RETROGRADE		DIRECT	
	Date	Long.	Date	Long.
	h m	s ° '	h m	s ° '
Mercury	Feb. 3, 25 36	10 6 25	Feb. 25, 15 58	9 21 7
	June 3, 28 18	2 5 36	June 27, 28 31	1 26 55
	Oct. 1, 19 18	6 5 24	Oct. 22, 24 51	5 19 55
Venus	— —	—	— —	—
Mars	— —	—	— —	—
Jupiter	— —	—	Mar. 16, 26 14	2 26 39
	Dec. 18, 9 30	4 8 16	— —	—
Saturn	Mar. 1, 10 39	6 27 56	July 19, 10 39	6 21 15
Uranus	— —	—	Apr. 1, 16 4	3 0 21
	Nov. 8, 11 37	3 9 5	— —	—
Neptune	Jan. 29, 18 12	6 5 0	July 7, 22 32	6 2 13
Pluto	— —	—	May 6, 18 37	4 1 4
	Dec. 1, 5 30	4 5 22	— —	—

New-Moon and Full-Moon

New-Moon	d h m	Lunar months begin		Full-Moon	d h m	Hindi months begin	
Jan.	24 6 36	Māgha	Sukla	Jan.	8 18 14	Māgha	Vadi
Feb.	22 21 21	Phālguna	,,	Feb.	7 7 13	Phālguna	,,
Mar.	24 9 12	Caitra	,,	Mar.	8 21 11	Caitra	,,
Apr.	22 18 36	Vaiśākha	,,	Apr.	7 12 5	Vaiśākha	,,
May	21 26 28	Jyaiṣṭha	,,	May	6 27 44	Jyaiṣṭha	,,
June	20 9 42	Āṣāḍha	,,	June	5 19 38	Āṣāḍha	,,
July	19 17 4	Śrāvaṇa	,,	July	5 10 58	Śravaṇa	,,
Aug.	17 25 28	Bhādra (*Mala*)	,,	Aug.	3 25 0	Bhādra	,,
Sept.	16 11 49	Bhādra	,,	Sept.	2 13 29	Bhādra (*Adhika*)	,,
Oct.	15 25 2	Āśvina	,,	Oct.	1 24 47	Āśvina	,,
Nov.	14 17 31	Kārtika	,,	Oct.	31 11 34	Kārtika	,,
Dec.	14 12 37	Agrahā	,,	Nov.	29 22 20	Agrahā	,,
				Dec.	29 9 14	Pauṣa	,,

Sun's entry into Nirayana Signs

			d h m				d h m
Makara	on	Jan	14 10 7	Karkaṭa	on	July	16 19 8
Kumbha	on	Feb.	12 23 5	Simha	on	Aug.	16 27 26
Mina	on	Mar.	14 19 59	Kanyā	on	Sept.	16 27 19
Meṣa	on	Apr.	13 28 33	Tulā	on	Oct.	17 15 13
Vṛṣa	on	May	14 25 30	Vṛścika	on	Nov.	16 14 57
Mithuna	on	June	15 8 9	Dhanus	on	Dec.	16 5 33

Saka era 1877-78, Samvat 2012-13 (Apr. 12, Nov. 3), B.S. 1362-63 (Apr. 14),
Kollam era 1131-32 (Aug. 16), 30 Durmukha (Apr. 12, Apr. 13)

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ५) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	16 9	3 26 12	4 10 36	4 24 33	5 8 0	5 21 1	6 3 39	6 15 58
8	23 9	6 28 2	7 9 57	7 21 45	8 3 32	8 15 19	8 27 10	9 9 5
15	1 10	9 21 7	10 3 17	10 15 37	10 28 8	11 10 53	11 23 53	0 7 13
22	8 10	0 20 53	1 4 55	1 19 19	2 4 4	2 19 3	3 4 10	3 19 15
29	15 10	4 4 8	4 18 40	5 2 46	5 16 23	5 29 32	6 12 14	6 24 35
Feb. 5	22 10	7 6 39	7 18 32	8 0 19	8 12 5	8 23 54	9 5 49	9 17 53
12	29 10	10 0 7	10 12 32	10 25 8	11 7 56	11 20 55	0 4 5	0 17 29
19	6 11	1 1 6	1 14 58	1 29 6	2 13 28	2 28 4	3 12 47	3 27 32
26	13 11	4 12 10	4 26 34	5 10 37	5 24 14	6 7 26	6 20 12	7 2 36
Mar. 4	20 11	7 14 43	7 26 38	8 8 27	8 20 15	9 2 7	9 14 7	9 26 19
11	27 11	10 1 44	10 21 25	11 4 20	11 17 29	0 0 50	0 14 21	0 28 2
18	4 12	1 11 50	1 25 46	2 9 49	2 23 59	3 8 14	3 22 32	4 6 49
25	11 12	4 21 1	5 5 1	5 18 46	6 2 11	6 15 15	6 27 58	7 10 22
Apr. 1	18 12	7 22 31	8 4 28	8 16 18	8 28 8	9 10 2	9 22 5	10 4 21
8	25 12	10 16 55	10 29 46	11 12 57	11 26 26	0 10 11	0 24 8	1 8 13
15	2 1	1 22 24	2 6 36	2 20 49	3 4 59	3 19 5	4 3 6	4 17 0
22	9 1	5 0 44	5 14 17	5 27 36	6 10 41	6 23 29	7 6 1	7 18 19
29	16 1	8 0 24	8 12 20	8 24 11	9 6 2	9 17 56	10 0 0	10 12 17
May 6	23 1	10 24 52	11 7 47	11 21 6	0 4 47	0 18 49	1 3 8	1 17 39
13	30 1	2 2 16	2 16 53	3 1 25	3 15 47	3 29 57	4 13 52	4 27 32
20	6 2	5 10 57	5 24 7	6 7 3	6 19 45	7 2 14	7 14 32	7 26 39
27	13 2	8 8 39	8 20 32	9 2 23	9 14 13	9 26 8	10 8 11	10 20 27
June 3	20 2	11 2 59	11 15 53	11 29 10	0 12 53	0 27 1	1 11 32	1 26 20
10	27 2	2 11 19	2 26 20	3 11 14	3 25 55	4 10 16	4 24 16	5 7 53
17	3 3	5 21 8	6 4 4	6 16 43	6 29 8	7 11 21	7 23 26	8 5 24
24	10 3	8 17 17	8 29 8	9 10 59	9 22 51	10 4 48	10 16 52	10 29 7
July 1	17 3	11 11 37	11 24 26	0 7 37	0 21 14	1 5 18	1 19 47	2 4 40
8	24 3	2 19 47	3 5 2	3 20 13	4 5 20	4 19 45	5 3 55	5 17 36
15	31 3	6 0 51	6 13 41	6 26 12	7 8 27	7 20 31	8 2 27	8 14 19
22	6 4	8 26 9	9 8 0	9 19 53	10 1 49	10 13 52	10 26 2	11 8 21
29	13 4	11 20 53	0 3 41	0 16 47	1 0 16	1 14 10	1 28 29	2 13 12
Aug. 5	20 4	2 28 14	3 13 27	3 28 40	4 13 43	4 28 27	5 12 44	5 26 32
12	27 4	6 9 51	6 22 43	7 5 12	7 17 25	7 29 25	8 11 18	8 23 7
19	3 5	9 4 57	9 16 50	9 28 49	10 10 54	10 23 06	11 5 27	11 17 58
26	10 5	0 0 39	0 13 33	0 26 42	1 10 8	1 23 54	2 8 1	2 22 28
Sept. 2	17 5	3 7 13	3 22 9	4 7 9	4 22 3	5 6 42	5 20 58	6 4 48
9	24 5	6 18 10	7 1 5	7 13 37	7 25 51	8 7 51	8 19 44	9 1 35
16	31 5	9 13 26	9 25 23	10 7 28	10 19 43	11 2 9	11 14 45	11 27 33
23	7 6	0 10 32	0 23 43	1 7 4	1 20 38	2 4 26	2 18 26	3 2 40
30	14 6	3 17 5	4 1 38	4 16 13	5 0 44	5 15 04	5 29 6	6 12 47
Oct. 7	21 6	6 26 5	7 9 0	7 21 33	8 3 49	8 15 52	8 27 46	9 9 38
14	28 6	9 21 31	10 3 31	10 15 40	10 28 3	11 10 40	11 23 33	0 6 41
21	4 7	0 20 3	1 3 37	1 17 22	2 1 16	2 15 17	2 29 24	3 13 34
28	11 7	3 27 46	4 11 58	4 26 7	5 10 8	5 24 0	6 7 38	6 21 1
Nov. 4	18 7	7 4 5	7 16 52	7 29 22	8 11 37	8 23 40	9 5 36	9 17 27
11	25 7	9 29 21	10 11 20	10 23 30	11 5 54	11 18 37	0 1 39	0 15 2
18	2 8	0 28 45	1 12 45	1 26 59	2 11 22	2 25 49	3 10 15	3 24 35
25	9 8	4 8 47	4 22 49	5 6 38	5 20 15	6 3 40	6 16 51	6 29 49
Dec. 2	16 8	7 12 34	7 25 7	8 7 27	8 19 37	9 1 38	9 13 33	9 25 24
9	23 8	10 7 16	10 19 13	11 1 19	11 13 40	11 26 19	0 9 21	0 22 48
16	1 9	1 6 41	1 20 58	2 5 36	2 20 27	3 5 23	3 20 16	4 4 58
23	8 9	4 19 23	5 3 29	5 17 13	6 0 37	6 13 43	6 26 34	7 9 11
30	15 9	7 21 37	8 3 53	8 16 2	8 28 4	9 10 1	9 21 54	10 3 44
Jan. 6	22 9	10 15 36	10 27 32	11 9 35	11 21 50	0 4 23	0 17 17	1 0 37

Ayanamsa on 1st Jan. : 23° 14′ 55″

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	19	8	7	5	38	4R	7	57	6	28	11	8	16	18	9	16	18	9	1	38	9	3	10
3	21	8	7	5	50	4	7	51	6	29	29	8	18	20	9	18	46	9	4	41	9	6	11
5	23	8	7	6	02	4	7	45	7	0	48	8	20	22	9	21	15	9	7	39	9	9	05
7	25	8	7	6	13	4	7	38	7	2	06	8	22	25	9	23	43	9	10	28	9	11	49
9	27	8	7	6	25	4	7	30	7	3	25	8	24	27	9	26	11	9	13	06	9	14	19
11	29	8	7	6	36	4	7	21	7	4	43	8	26	29	9	28	39	9	15	28	9	16	31
13	30	8	7	6	46	4	7	12	7	6	02	8	28	31	10	1	06	9	17	28	9	18	18
15	2	9	7	6	57	4	7	02	7	7	20	9	0	34	10	3	34	9	19	00	9	19	33
17	4	9	7	7	07	4	6	51	7	8	39	9	2	36	10	6	01	9	19	57	9R	20	09
19	6	9	7	7	17	4	6	40	7	9	58	9	4	38	10	8	28	9	20	11	9	20	02
21	8	9	7	7	26	4	6	28	7	11	16	9	6	40	10	10	55	9	19	40	9	19	08
23	10	9	7	7	36	4	6	16	7	12	35	9	8	43	10	13	22	9	18s	24	9	17	30
25	12	9	7	7	45	4	6	03	7	13	53	9	10	45	10	15	48	9	16	28	9	15	19
27	15	9	7	7	53	4	5	50	7	15	12	9	12	46	10	18	14	9	14	06	9	12	51
29	17	9	7	8	02	4	5	36	7	16	31	9	14	48	10	20	40	9	11	34	9	10	22
31	19	9	7	8	10	4	5	22	7	18	00	9	16	50	10	23	06	9	9	12	9	8r	08
Feb. 2	21	9	7	8	18	4	5	07	7	19	08	9	18	52	10	25	31	9	7	11	9	6	22
4	23	9	7	8	25	4	4	52	7	20	27	9	20	54	10	27	56	9	5	41	9	5	09
6	25	9	7	8	32	4	4	37	7	21	46	9	22	55	11	0	21	9	4	45	9	4	29
8	27	9	7	8	39	4	4	22	7	23	05	9	24	57	11	2	46	9D	4	21	9	4	21
10	29	9	7	8	45	4	4	06	7	24	23	9	26	59	11	5	10	9	4	28	9	4	42
12	1	10	7	8	51	4	3	50	7	25	42	9	29	00	11	7	34	9	5	02	9	5	28
14	3	10	7	8	57	4	3	35	7	27	01	10	1	01	11	9	57	9	5	58	9	6	34
16	4	10	7	9	02	4	3	19	7	28	20	10	3	03	11	12	20	9	7	15	9	7	59
18	7	10	7	9	07	4	3	03	7	29	38	10	5	04	11	14	42	9	8	47	9	9	39
20	9	10	7	9	11	4	2	47	8	0	57	10	7	05	11	17	05	9	10	33	9	11	32
22	11	10	7	9	15	4	2	31	8	2	16	10	9	06	11	19	26	9	12	32	9	13	35
24	13	10	7	9	19	4	2	16	8	3	35	10	11	07	11	21	48	9	14	41	9	15	49
26	15	10	7	9	22	4	2	00	8	4	53	10	13	07	11	24	08	9	16	58	9	18	10
28	18	10	7	9	25	4	1	45	8	6	12	10	15	08	11	26	29	9	19	24	9	20	39
Mar. 1	20	10	7	9	27	4	1	30	8	7	31	10	17	08	11	28	48	9	21	56	9	23	15
3	22	10	7.	9	30	4	1	16	8	8	49	10	19	09	0	1	07	9	24	35	9	25	56
5	23	10	7	9	31	4	1	01	8	10	08	10	21	09	0	3	26	9	27	19	9	28	44
7	25	10	7	9	32	4	0	48	8	11	27	10	23	09	0	5	43	10	0	09	10	1	36
9	27	10	7	9	33	4	0	34	8	12	45	10	25	09	0	8	01	10	3	05	10	4	34
11	29	10	7R	9	34	4	0	21	8	14	04	10	27	09	0	10	17	10	6	05	10	7	37
13	1	11	7	9	34	4	0	09	8	15	22	10	29	09	0	12	33	10	9	10	10	10	45
15	3	11	7	9	33	3	29	57	8	16	41	11	1	08	0	14	48	10	12	20	10	13	57
17	5	11	7	9	33	3	29	45	8	17	59	11	3	08	0	17	02	10	15	35	10	17	16
19	7	11	7	9	31	3	29	34	8	19	17	11	5	07	0	19	15	10	18	55	10	20	37
21	9	11	7	9	30	3	29	24	8	20	36	11	7	06	0	21	28	10	22	40	10	24	04
23	12	11	7	9	28	3	29	15	8	21	54	11	9	05	0	23	40	10	25	50	10	27	37
25	14	11	7	9	25	3	29	06	8	23	12	11	11	04	0	25	50	10	29s	25	11	1	15
27	16	11	7	9	23	3	28	57	8	24	30	11	13	03	0	28	00	11	3	05	11	4	58
29	18	11	7	9	20	3	28	50	8	25	48	11	15	02	1	0	08	11	6	51	11	8	46
31	20	11	7	9	16	3	28	43	8	27	06	11	17	00	1	2	15	11	10	42	11	12	40
Apr. 2	22	11	7	9	12	3	28	37	8	28	23	11	18	59	1	4	21	11	14	38	11	16	38
4	24	11	7	9	08	3	28	31	8	29	41	11	20	57	1	6	26	11	18	39	11	20	41
6	25	11	7	9	03	3	28	27	9	0	58	11	22	55	1	8	29	11	22	44	11	24	48
8	27	11	7	8	58	3	28	23	9	2	16	11	24	53	1	10	31	11	26	53	11	28	58
10	29	11	7	8	53	3	28	19	9	3	33	11	26	51	1	12	32	0	1	04	0	3	10
12	1	12	7	8	48	3	28	17	9	4	50	11	28	49	1	14	30	0	5	15	0	7	21
14	4	12	7	8	42	3	28	15	9	6	07	0	0	46	1	16	27	0	9	25	0	11	28
16	6	12	7	8	36	3	28	14	9	7	24	0	2	44	1	18	23	0	13	30	0	15r	31

Ayanamsa on 1st Jan. : 23° 14′ 55″

Date	Tithi & Month	Nirayana Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 16	6 12	7R8 36	3R28 14	9 7 24	0 2 44	1 18 23	0 13 30	0 15r31
18	8 12	7 8 29	3D28 14	9 8 40	0 4 41	1 20 16	0 17 29	0 19 25
20	10 12	7 8 22	3 28 15	9 9 57	0 6 38	1 22 07	0 21 18	0 23 08
22	12 12	7 8 15	3 28 16	9 11 13	0 8 35	1 23 56	0 24 55	0 26 38
24	14 12	7 8 08	3 28 18	9 12 29	0 10 32	1 25 42	0 28 18	0 29 53
26	16 12	7 8 01	3 28 21	9 13 44	0 12 29	1 27 26	1 1 25	1 2 53
28	18 12	7 7 53	3 28 24	9 15 00	0 14 26	1 29 07	1 4 15	1 5 35
30	20 12	7 7 45	3 28 28	9 16 15	0 16 22	2 0 44	1 6 49	1 7 58
May 2	22 12	7 7 37	3 28 33	9 17 30	0 18 18	2 2 19	1 9 03	1 10 04
4	24 12	7 7 29	3 28 39	9 18 45	0 20 15	2 3 50	1 10 59	1 11 49
6	26 12	7 7 20	3 28 45	9 19 59	0 22 11	2 5 18	1 12 35	1 13 16
8	28 12	7 7 12	3 28 52	9 21 13	0 24 07	2 6 41	1 13 51	1 14 21
10	30 12	7 7 03	3 29 00	9 22 27	0 26 03	2 8 00	1 14 47	1 15 07
12	2 1	7 6 54	3 29 08	9 23 40	0 27 59	2 9 14	1 15 22	1 15 32
14	4 1	7 6 46	3 29 17	9 24 53	0 29 55	2 10 24	1R15 37	1 15 37
16	7 1	7 6 37	3 29 26	9 26 05	1 1 51	2 11 28	1 15 32	1 15 23
18	9 1	7 6 28	3 29 37	9 27 17	1 3 46	2 12 26	1 15 09	1 14s51
20	11 1	7 6 19	3 29 48	9 28 29	1 5 42	2 13 17	1 14 30	1 14 05
22	13 1	7 6 10	3 29 59	9 29 40	1 7 37	2 14 02	1 13 37	1 13 07
24	15 1	7 6 01	4 0 11	10 0 50	1 9 32	2 14 39	1 12 36	1 12 02
26	17 1	7 5 52	4 0 24	10 2 00	1 11 28	2 15 09	1 11 28	1 10 54
28	19 1	7 5 43	4 0 37	10 3 10	1 13 23	2 15 30	1 10 21	1 9 48
30	20 1	7 5 34	4 0 50	10 4 18	1 15 18	2R15 42	1 9 17	1 8 49
June 1	22 1	7 5 26	4 1 04	10 5 26	1 17 13	2 15 46	1 8 22	1 7r59
3	24 1	7 5 17	4 1 19	10 6 34	1 19 08	2 15 40	1 7 39	1 7 23
5	26 1	7 5 08	4 1 34	10 7 41	1 21 03	2 15 25	1 7 11	1 7 03
7	28 1	7 5 00	4 1 50	10 8 46	1 22 57	2 15 00	1D6 59	1 7 00
9	1 2	7 4 52	4 2 06	10 9 51	1 24 53	2 14 25	1 7 05	1 7 14
11	3 2	7 4 44	4 2 23	10 10 55	1 26 47	2 13 42	1 7 29	1 7 47
13	5 2	7 4 36	4 2 40	10 11 59	1 28 42	2 12 50	1 8 10	1 8 38
15	7 2	7 4 28	4 2 58	10 13 01	2 0 36	2 11 50	1 9 10	1 9 46
17	10 2	7 4 21	4 3 16	10 14 02	2 2 31	2 10 44	1 10 37	1 11 11
19	12 2	7 4 14	4 3 34	10 15 02	2 4 25	2 9s33	1 12 00	1 12 52
21	13 2	7 4 07	4 3 53	10 16 01	2 6 20	2 8 19	1 13 49	1 14 50
23	15 2	7 4 00	4 4 12	10 16 59	2 8 14	2 7 04	1 15 54	1 17 02
25	17 2	7 3 54	4 4 31	10 17 55	2 10 09	2 5 49	1 18 14	1 19 29
27	19 2	7 3 48	4 4 51	10 18 50	2 12 03	2 4r37	1 20 48	1 22 11
29	21 2	7 3 42	4 5 12	10 19 44	2 13 58	2 3 30	1 23 37	1 25 07
July 1	23 2	7 3 36	4 5 32	10 20 36	2 15 52	2 2 28	1 26 40	1 28 17
3	25 2	7 3 31	4 5 53	10 21 27	2 17 46	2 1 34	1 29 57	2 1 40
5	27 2	7 3 26	4 6 14	10 22 16	2 19 41	2 0 48	2 3 26	2 5 16
7	29 2	7 3 21	4 6 36	10 23 03	2 21 35	2 0 11	2 7 08	2 9 03
9	1 3	7 3 17	4 6 58	10 23 48	2 23 30	1 29 43	2 11 01	2 13s01
11	4 3	7 3 13	4 7 20	10 24 32	2 25 24	1 29 25	2 15 08	2 17 07
13	6 3	7 3 10	4 7 42	10 25 13	2 27 19	1D29 16	2 19 12	2 21 19
15	8 3	7 3 07	4 8 05	10 25 52	2 29 13	1 29 16	2 23 26	2 25 35
17	10 3	7 3 04	4 8 28	10 26 29	3 1 07	1 29 26	2 27 43	2 29 52
19	12 3	7 3 01	4 8 51	10 27 04	3 3 02	1 29 44	3 2 00	3 4 08
21	14 3	7 2 59	4 9 15	10 27 36	3 4 56	2 0 11	3 6 15	3 8 22
23	16 3	7 2 58	4 9 38	10 28 06	3 6 51	2 0 45	3 10 27	3 12 31
25	17 3	7 2 56	4 10 02	10 28 33	3 8 46	2 1 27	3 14 34	3 16 35
27	19 3	7 2 55	4 10 26	10 28 57	3 10 40	2 2 15	3 18 35	3 20 33
29	21 3	7 2 55	4 10 50	10 29 19	3 12 35	2 3 10	3 22 30	3 24 25
31	23 3	7D2 55	4 11 15	10 29 38	3 14 30	2 4 11	3 26r18	3 28 10

EPHEMERIS Longitudes of Planets 1956 A.D.

Ayanamsa on 1st Jan. : 23° 14′ 55″

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ नि			गु ♃ रु			म ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
July31	23	3	7D	2	55	4	11	15	10	29	38	3	14	30	2	4	11	3	26r	18	3	28	10
Aug. 2	25	3	7	2	55	4	11	39	10	29	53	3	16	24	2	5	18	4	0	01	4	1	49
4	28	3	7	2	55	4	12	04	11	0	06	3	18	19	2	6	29	4	3	36	4	5	22
6	30	3	7	2	56	4	12	29	11	0	15	3	20	14	2	7	46	4	7	06	4	8	48
8	2	4	7	2	58	4	12	54	11	0	21	3	22	09	2	9	07	4	10	29	4	12	08
10	5	4	7	3	00	4	13	19	11R	0	24	3	24	04	2	10	31	4	13	45	4	15	21
12	7	4	7	3	02	4	13	45	11	0	23	3	26	00	2	12	00	4	16	56	4	18	28
14	9	4	7	3	04	4	14	10	11	0	20	3	27	55	2	13	32	4	20	00	4	21	29
16	10	4	7	3	08	4	14	35	11	0	13	3	29	50	2	15	07	4	22	57	4	24	24
18	12	4	7	3	11	4	15	01	11	0	03	4	1	46	2	16	46	4	25	49	4	27	12
20	14	4	7	3	14	4	15	27	10	29	49	4	3	41	2	18	27	4	28	34	4	29	54
22	16	4	7	3	18	4	15s	52	10	29	33	4	5	36	2	20	11	5	1	12	5	2	28
24	18	4	7	3	23	4	16	18	10	29	14	4	7	32	2	21	57	5	3	43	5	4	55
26	20	4	7	3	28	4	16	44	10	28	52	4	9	28	2	23	46	5	6	06	5	7	14
28	22	4	7	3	33	4	17	10	10	28	28	4	11	24	2	25	37	5	8	21	5	9	25
30	24	4	7	3	38	4	17	36	10	28	01	4	13	20	2	27	30	5	10	26	5	11	26
Sept.1	26	4	7	3	44	4	18	02	10	27	33	4	15	16	2	29	25	5	12	22	5	13	16
3	28	4	7	3	51	4	18	28	10	27	03	4	17	12	3	1	22	5	14	06	5	14	54
5	1	5	7	3	57	4	18	54	10	26	31	4	19	08	3	3	20	5	15	38	5	16	18
7	3	5	7	4	04	4	19	20	10	25	58	4	21	05	3	5	20	5	16	55	5	17	27
9	5	5	7	4	11	4	19	46	10	25	25	4	23	01	3	7	22	5	17	55	5	18	18
11	7	5	7	4	23	4	20	12	10	24	52	4	24	58	3	9	25	5	18	35	5	18	48
13	9	5	7	4	31	4	20	38	10	24	19	4	26	55	3	11	29	5R	18	55	5	18	55
15	11	5	7	4	39	4	21	04	10	23	47	4	28	52	3	13	34	5	18	49	5	18	37
17	13	5	7	4	48	4	21r	30	10	23	16	5	0	49	3	15	41	5	18	17	5	17	51
19	14	5	7	4	57	4	21	55	10	22	46	5	2	46	3	17	49	5	17	18	5	16	37
21	16	5	7	5	06	4	22	21	10	22	17	5	4	43	3	19	58	5	15	51	5	14s	58
23	18	5	7	5	15	4	22	47	10	21	51	5	6	41	3	22	08	5	14	00	5	12	58
25	20	5	7	5	25	4	23	12	10	21	27	5	8	38	3	24	19	5	11	53	5	10	47
27	22	5	7	5	35	4	23	38	10	21	05	5	10	36	3	26	31	5	9	40	5	8	36
29	25	5	7	5	46	4	24	03	10	20	46	5	12	34	3	28	44	5	7	35	5	6	39
Oct. 1	27	5	7	5	51	4	24	29	10	20	29	5	14	32	4	0	57	5	5	50	5	5r	09
3	29	5	7	6	02	4	24	54	10	20	16	5	16	30	4	3	12	5	4	37	5	4	15
5	1	6	7	6	12	4	25	19	10	20	06	5	18	28	4	5	27	5D	4	03	5	4	02
7	3	6	7	6	24	4	25	43	10	19	59	5	20	26	4	7	44	5	4	11	5	4	31
9	5	6	7	6	35	4	26	08	10	19	55	5	22	25	4	10	00	5	5	01	5	5	40
11	7	6	7	6	47	4	26	33	10D	19	54	5	24	24	4	12	18	5	6	28	5	7	24
13	9	6	7	6	58	4	26	57	10	19	56	5	26	22	4	14	36	5	8	26	5	9	35
15	11	6	7	7	10	4	27	21	10	20	02	5	28	21	4	16	55	5	10	50	5	12	10
17	13	6	7	7	23	4	27	45	10	20	11	6	0	20	4	19	14	5	13	33	5	15	01
19	15	6	7	7	35	4	28	09	10	20	23	6	2	19	4	21	35	5	16	31	5	18	03
21	17	6	7	7	48	4	28	32	10	20	38	6	4	19	4	23	55	5	19	38	5	21	14
23	19	6	7	8	00	4	28	55	10	20	55	6	6	18	4	26	16	5	22	52	5	24	30
25	21	6	7	8	13	4	29	18	10	21	16	6	8	18	4	28	38	5	26	09	5	27s	49
27	23	6	7	8	26	4	29	41	10	21	39	6	10	17	5	1	00	5	29	29	6	1	09
29	25	6	7	8	39	5	0	03	10	22	05	6	12	17	5	3	23	6	2	49	6	4	30
31	28	6	7	8	53	5	0	25	10	22	33	6	14	17	5	5	46	6	6	10	6	7	50
Nov. 2	30	6	7	9	06	5	0	47	10	23	04	6	16	17	5	8	09	6	9	29	6	11	09
4	2	7	7	9	20	5	1	09	10	23	37	6	18	18	5	10	33	6	12	48	6	14	26
6	4	7	7	9	33	5	1	30	10	24	12	6	20	18	5	12	58	6	16	05	6	17	43
8	6	7	7	9	47	5	1	51	10	24	50	6	22	18	5	15	22	6	19	21	6	20	58
10	7	7	7	10	01	5	2	11	10	25	30	6	24	19	5	17	47	6	22	35	6	24	11
12	9	7	7	10s	15	5	2	31	10	26	11	6	26	20	5	20	13	6	25	48	6	27	24
14	11	7	7	10	29	5	2	51	10	26	55	6	28	21	5	22	38	6	28	59	7	0	35

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Longitudes of Planets

Date	Tithi & Month	Nirayana Longitudes at 5-30 A M. I.S.T. ♄	♃	♂	☉	♀	☿	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov14	11 7	7 10d29	5 2 51	10 28 55	6 28 21	5 22 38	6 28d59	7 0 35
16	13 7	7 10 43	5 3 10	10 27 40	7 0 21	5 25 04	7 2 10	7 3 45
18	15 7	7 10 57	5 3 29	10 28 27	7 2 22	5 27 30	7 5 19	7 6 53
20	17 7	7 11 11	5 3 47	10 29 15	7 4 23	5 29 57	7 8 28	7 10 01
22	20 7	7 11 25	5 4 05	11 0 05	7 6 25	6 2 24	7 11 35	7 13 09
24	22 7	7 11 40	5 4 23	11 0 56	7 8 26	6 4 51	7 14 42	7 16 15
26	24 7	7 11 54	5 4 40	11 1 49	7 10 27	6 7 18	7 17 49	7 19 22
28	26 7	7 12 08	5 4 56	11 2 43	7 12 29	6 9 46	7 20 54	7 22 27
30	28 7	7 12 22	5 5 13	11 3 38	7 14 30	6 12 13	7 24 00	7 25 33
Dec. 2	30 7	7 12 37	5 5 28	11 4 34	7 16 32	6 14 41	7 27 05	7 28 37
4	2 8	7 12 51	5 5 43	11 5 32	7 18 34	6 17 09	8 0r10	8 1 42
6	4 8	7 13 05	5 5 58	11 6 30	7 20 36	6 19 38	8 3 14	8 4 45
8	6 8	7 13 19	5 6 12	11 7 30	7 22 38	6 22 06	8 6 17	8 7 48
10	8 8	7 13 33	5 6 25	11 8 30	7 24 40	6 24 35	8 9 19	8 10 50
12	9 8	7 13r47	5 6 38	11 9 32	7 26 41	6 27 04	8 12 20	8 13 49
14	11 8	7 14 01	5 6 50	11 10 34	7 28 43	6 29 32	8 15 18	8 16 46
16	13 8	7 14 15	5 7 01	11 11 37	8 0 46	7 2 01	8 18 13	8 19 38
18	16 8	7 14 29	5 7 12	11 12 41	8 2 48	7 4 30	8 21 03	8 22 25
20	18 8	7 14 43	5 7 22	11 13 46	8 4 50	7 7 00	8 23 46	8 25 04
22	20 8	7 14 56	5 7 32	11 14 51	8 6 52	7 9 29	8 26 20	8 27 32
24	23 8	7 15 10	5 7 41	11 15 56	8 8 54	7 11 58	8 28 41	8 29 45
26	25 8	7 15 23	5 7 49	11 17 03	8 10 56	7 14 28	9 0 44	9 1 38
28	27 8	7 15 36	5 7 57	11 18 10	8 12 59	7 16 57	9 2 25	9 3 04
30	29 8	7 15 49	5 8 04	11 19 17	8 15 01	7 19 27	9 3 35	9 3 57
Jan. 1	30 8	7 16 02	5 8 10	11 20 25	8 17 03	7 21 57	9R4 03	9 4 09

Longitudes of Rahu. Uranus. Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	7 24 3	7 22 51	3R 7 54	6 6 54	4R 5 7	23 14 55
February	1	7 22 41	7 21 12	3 6 35	6R 7 10	4 4 30	23 15 0
March	1	7 19 42	7 19 40	3 5 30	6 6 57	4 3 46	23 15 4
April	1	7 16 26	7 18 2	3 4 59	6 6 18	4 3 10	23 15 7
May	1	7 14 56	7 16 26	3D 5 15	6 5 29	4 2 51	23 15 10
June	1	7 14 51	7 14 48	3 6 19	6 4 46	4D 2 58	23 15 14
July	1	7 14 38	7 13 13	3 7 53	6 4 25	4 3 32	23 15 20
August	1	7 12 55	7 11 33	3 9 45	6D 4 32	4 4 24	23 15 24
September	1	7 9 44	7 9 55	3 11 34	6 5 08	4 5 23	23 15 28
October	1	7 6 54	7 8 19	3 12 56	6 6 04	4 6 17	23 15 31
November	1	7 5 43	7 6 41	3 13 41	6 7 13	4 6 56	23 15 34
December	1	7 5 45	7 5 6	3R13 34	6 8 15	4R 7 11	23 15 38
January	1	7 5 7	7 3 27	3 12 42	6 9 02	4 6 58	23 15 44

Combustion or Heliacal Setting of Planets

Saturn	:	From Nov. 12 to Dec. 11
Jupiter	:	From Aug. 20 to Sept. 15
Mars	:	— —
Venus	:	From June 17 to June 27
Mercury	:	From Jan. 23 to Feb. 1, Mar. 14 to Apr. 17, May 18 to June 6, July 8 to Aug. 3, Sept. 16 to Oct. 1, Oct. 25 to Dec. 9.

Planet	Retrograde							Direct						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Jan	18,	21	20	9	20	12	Feb.	8,	17	43	9	4	20
	May	14.	17	45	1	15	37	June	7,	14	8	1	6	59
	Sept.	13,	19	34	5	18	56	Oct.	5,	19	53	5	4	1
Venus	May	31,	23	27	2.	15	46	July	13,	26	51	1	29	15
Mars	Aug.	10,	21	49	11	0	24	Oct.	10,	16	0	10	19	54
Jupiter	—		—		—			Apr.	17,	17	30	3	28	14
Saturn	Mar.	12.	9	30	7	9	34	July	[illegible],	25	30	7	2	55
Uranus	— Nov.	 12,	— 10	 56	 3	— 13	 44	Apr. —	5,	16 —	49	3	4 —	58
Neptune	Feb.	1,	7	33	6	7	10	July	9,	16	20	6	4	23
Pluto	— Dec.	 1.	— 24	 30	 4	— 7	 11	May —	7.	7 —	30	4	2 —	51

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	13	8	31	Pauṣa	Sukla	Jan.	27	20	10	Māgha	Vadi
Feb.	11	27	8	Māgha	,,	Feb.	26	7	11	Phālguna	,,
Mar.	12	19	6	Phālguna	,,	Mar.	26	18	41	Caitra	,,
Apr.	11	8	9	Caitra	,,	Apr.	25	7	10	Vaiśākha	,,
May	10	18	34	Vaiśākha	,,	May	24	20	56	Jyaiṣṭha	,,
June	8	26	59	Jyaiṣṭha	,,	June	23	11	43	Āṣāḍha	,,
July	8	10	7	Āṣāḍha	,,	July	22	26	59	Śravaṇa	,,
Aug.	6	16	55	Śrāvaṇa	,,	Aug.	21	18	8	Bhādra	,,
Sept.	4	24	27	Bhādra	,,	Sept.	20	8	49	Āśvina	,,
Oct.	4	9	51	Āśvina	,,	Oct.	19	22	54	Kārtika	,,
Nov.	2	22	13	Kārtika	,,	Nov.	18	12	14	Agrahā	,,
Dec.	2	13	42	Agrahā	,,	Dec.	17	24	36	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	16	14	Karkaṭa	on	July	15	25	13
Kumbha	on	Feb.	12	29	12	Siṁha	on	Aug.	16	9	36
Mina	on	Mar.	13	26	5	Kanyā	on	Sept.	16	9	28
Meṣa	on	Apr.	13	10	38	Tulā	on	Oct.	16	21	19
Vṛṣa	on	May	14	7	35	Vṛścika	on	Nov.	15	21	2
Mithuna	on	June	14	14	17	Dhanus	on	Dec.	15	11	35

1957 A.D. Longitude of Moon CONDENSED

Saka era 1878-79, Samvat 2013-14 (Apr. 1, Oct. 24), B.S. 1363-64 (Apr. 14),
Kollam era 1132-33 (Aug. 17), 31 Hemalamba (Apr. 1, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (च) ऽ) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs,	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.30	15 9	7 21 37	8 3 53	8 16 2	8 28 4	9 10 1	9 21 54	10 3 44
Jan. 6	22 9	10 15 36	10 27 32	11 9 35	11 21 50	0 4 23	0 17 17	1 0 37
13	29 9	1 14 26	1 28 45	2 13 29	2 28 35	3 13 51	3 29 8	4 14 13
20	6 10	4 28 58	5 13 18	5 27 10	6 10 35	6 23 36	7 6 17	7 18 42
27	13 10	8 0 55	8 13 0	8 24 58	9 6 53	9 18 46	10 0 38	10 12 31
Feb. 3	20 10	10 24 25	11 6 23	11 18 28	0 0 44	0 13 13	0 26 1	1 9 12
10	27 10	1 22 50	2 6 57	2 21 33	3 6 33	3 21 49	4 7 12	4 22 28
17	5 11	5 7 28	5 22 2	6 6 6	6 19 41	7 2 47	7 15 30	7 27 53
24	12 11	8 10 2	8 22 1	9 4 55	9 15 46	9 27 37	10 9 30	10 21 27
Mar. 3	19 11	11 3 28	11 15 34	11 27 47	0 10 12	0 22 47	1 5 37	1 18 46
10	26 11	2 2 17	2 16 12	3 0 32	3 15 14	4 0 14	4 15 22	5 0 30
17	3 12	5 15 26	6 0 2	6 14 13	6 27 55	7 11 10	7 23 59	8 6 27
24	10 12	8 18 38	9 0 38	9 12 32	9 24 23	10 6 15	10 18 11	11 0 13
31	17 12	11 12 22	11 24 41	0 7 10	0 19 49	1 2 40	1 15 45	1 29 4
Apr. 7	24 12	2 12 39	2 26 30	3 10 39	3 25 3	4 9 40	4 24 23	5 9 6
14	1 1	5 23 42	6 8 1	6 22 7	7 5 47	7 19 3	8 1 56	8 14 28
21	8 1	8 26 44	9 8 47	9 20 43	10 2 35	10 14 29	10 26 28	11 8 35
28	15 1	11 20 53	0 3 25	0 16 10	0 29 10	1 12 24	1 25 51	2 9 31
May 5	22 1	2 23 32	3 7 23	3 21 32	4 5 47	4 20 5	5 4 23	5 18 38
12	29 1	6 2 45	6 16 43	7 0 25	7 13 51	7 26 58	8 9 48	8 22 19
19	5 2	9 4 36	9 16 41	9 28 38	10 10 32	10 22 26	11 4 26	11 16 36
26	12 2	11 29 0	0 11 40	0 24 40	1 7 59	1 21 36	2 5 31	2 19 38
June 2	19 2	3 3 54	3 18 14	4 2 34	4 16 51	5 1 1	5 15 2	5 28 54
9	26 2	6 12 36	6 26 6	7 9 24	7 22 29	8 5 21	8 17 59	9 0 24
16	1 3	9 12 37	9 24 41	10 6 37	10 18 29	11 0 23	11 12 22	11 24 31
23	8 3	0 6 55	0 19 39	1 2 46	1 16 18	2 0 13	2 14 30	2 29 4
30	15 3	3 13 47	3 28 32	4 13 12	4 27 40	5 11 52	5 25 48	6 9 28
July 7	22 3	6 22 51	7 6 0	7 18 57	8 1 42	8 14 16	8 26 40	9 8 55
14	29 3	9 21 1	10 2 59	10 14 53	10 26 44	11 8 36	11 20 33	0 2 40
21	5 4	0 15 2	0 27 44	1 10 51	1 24 25	2 8 28	2 22 58	3 7 49
28	12 4	3 22 53	4 8 0	4 23 0	5 7 45	5 22 9	6 6 9	6 19 46
Aug. 4	19 4	7 3 2	7 16 0	7 28 42	8 11 12	8 23 31	9 5 43	9 17 47
11	26 4	9 29 46	10 11 40	10 23 32	11 5 22	11 17 14	11 29 11	0 11 17
18	1 5	0 23 38	1 6 16	1 19 19	2 2 49	2 16 48	3 1 17	3 16 11
25	8 5	4 1 22	4 16 40	5 1 54	5 16 53	6 1 30	6 15 41	6 29 25
Sept 1	15 5	7 12 43	7 25 38	8 8 15	8 20 37	9 2 47	9 14 50	9 26 47
8	22 5	10 8 41	10 20 33	11 2 24	11 14 17	11 26 14	0 8 16	0 20 37
15	29 5	1 2 50	1 15 30	1 28 30	2 11 54	2 25 45	3 10 2	3 24 44
22	5 6	4 9 46	4 24 58	5 10 11	5 25 14	6 9 58	6 24 18	7 8 11
29	12 6	7 21 36	8 4 36	8 17 15	8 29 36	9 11 44	9 23 42	10 5 36
Oct. 6	19 6	10 17 27	10 29 19	11 11 14	11 23 13	0 5 19	0 17 32	0 29 56
13	26 6	1 12 31	1 25 20	2 8 26	2 21 50	3 5 35	3 19 39	4 4 4
20	3 7	4 18 44	5 3 35	5 18 30	6 3 21	6 17 59	7 2 18	7 16 14
27	10 7	7 29 45	8 12 52	8 25 35	9 7 59	9 20 9	10 2 7	10 14 0
Nov. 3	17 7	10 25 50	11 7 43	11 19 42	0 1 49	0 14 7	0 26 36	1 9 19
10	24 7	1 22 15	2 5 24	2 18 47	3 2 23	3 16 11	4 0 11	4 14 21
17	1 8	4 28 41	5 13 6	5 27 32	6 11 57	6 26 14	7 10 18	7 24 6
24	8 8	8 7 34	8 20 41	9 3 27	9 15 54	9 28 5	10 10 5	10 21 37
Dec. 1	15 8	11 3 48	11 15 41	11 27 42	0 9 54	0 22 22	1 5 7	1 16 10
8	22 8	2 1 30	2 15 7	2 28 56	3 12 56	3 27 1	4 11 10	4 25 29
15	29 8	5 9 27	5 23 32	6 7 33	6 21 29	7 5 18	7 18 57	8 2 25
22	7 9	8 15 38	8 28 36	9 11 17	9 23 42	10 5 53	10 17 52	10 29 44
29	14 9	11 11 33	11 23 25	0 5 24	0 17 37	1 0 9	1 13 1	1 26 13
Jan. 5	21 9	2 9 58	2 24 0	3 8 19	3 22 48	4 7 21	4 21 51	5 6 19

EPHEMERIS Longitudes of Planets 1957 A.D.

Ayanamsa on 1st Jan : 23° 15′ 44″

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ न	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	30 8	7 16 02	5 8 10	11 20 25	8 17 03	7 21 57	9 R 4 08	9 4 09
3	2 9	7 16 15	5 8 15	11 21 34	8 19 05	7 24 26	9 3 58	9 3 35
5	4 9	7 16 28	5 8 20	11 22 43	8 21 08	7 26 56	9 3 01	9 2 15
7	6 9	7 16 40	5 8 24	11 23 53	8 23 10	7 29 26	9 1 18	9 0 13
9	8 9	7 16 53	5 8 27	11 25 02	8 25 13	8 1 56	8 29 00	8 27 43
11	10 9	7 17 05	5 8 29	11 26 13	8 27 15	8 4 26	8 26 23	8 25 04
13	12 9	7 17 16	5 8 31	11 27 23	8 29 17	8 6 56	8 23 47	8 22 35
15	14 9	7 17 28	5R 8 32	11 28 34	9 1 19	8 9 25	8 21r30	8 20 32
17	16 9	7 17 40	5 8 32	11 29 46	9 3 22	8 11 55	8 19 43	8 19 04
19	19 9	7 17 51	5 8 32	0 0 57	9 5 24	8 14 25	8 18 34	8 18 14
21	21 9	7 18 02	5 8 30	0 2 09	9 7 26	8 16 55	8D 18 03	8 18 00
23	23 9	7 18 13	5 8 28	0 3 21	9 9 28	8 19 25	8 18 05	8 18 18
25	25 9	7 18 23	5 8 25	0 4 33	9 11 30	8 21 55	8 18 38	8 19 04
27	27 9	7 18 33	5 8 21	0 5 46	9 13 32	8 24 26	8 19 35	8 20 12
29	29 9	7 18 43	5 8 17	0 6 59	9 15 34	8 26 56	8 20 54	8 21 40
31	1 10	7 18 53	5 8 12	0 8 12	9 17 36	8 29 26	8 22 30	8 23 23
Feb. 2	2 10	7 19 02	5 8 06	0 9 25	9 19 38	9 1 56	8 24 20	8 25 20
4	4 10	7 19 11	5 7 59	0 10 39	9 21 39	9 4 26	8 26 22	8 27 27
6	6 10	7 19 20	5 7 52	0 11 53	9 23 41	9 6 56	8 28 34	8 29 44
8	8 10	7 19 28	5 7 44	0 13 06	9 25 43	9 9 26	9 0 55	9 2 08
10	10 10	7 19 36	5 7 35	0 14 20	9 27 44	9 11 56	9 3 23	9 4 39
12	12 10	7 19 44	5 7 26	0 15 34	9 29 45	9 14 26	9 5 57	9 7 16
14	15 10	7 19 52	5 7 16	0 16 49	10 1 47	9 16 56	9 8 36	9 9 58
16	17 10	7 19 59	5 7 05	0 18 03	10 3 48	9 19 26	9 11 21	9 12 45
18	19 10	7 20 05	5 6 54	0 19 18	10 5 49	9 21 56	9 14 10	9 15 37
20	21 10	7 20 12	5 6 42	0 20 32	10 7 50	9 24 25	9 17 04	9 18 33
22	23 10	7 20 18	5 6 30	0 21 47	10 9 51	9 26 55	9 20 03	9 21 33
24	25 10	7 20 24	5 6 17	0 23 01	10 11 51	9 29 25	9 23 05	9 24 38
26	27 10	7 20 29	5 6 04	0 24 16	10 13 52	10 1 55	9 26 12	9 27 46
28	29 10	7 20 34	5 5 50	0 25 31	10 15 53	10 4 25	9 29 22	10 0 59
Mar. 2	1 11	7 20 38	5 5 36	0 26 46	10 17 53	10 6 55	10 2 37	10 4 16
4	3 11	7 20 43	5 5 22	0 28 01	10 19 53	10 9 24	10 5 56	10 7 37
6	5 11	7 20 46	5 5 07	0 29 16	10 21 54	10 11 54	10 9 19	10 11 02
8	6 11	7 20 50	5 4 52	1 0 32	10 23 54	10 14 24	10 12 46	10 14 32
10	9 11	7 20 53	5 4 37	1 1 47	10 25 54	10 16 53	10 16 18	10 18 06
12	11 11	7 20 55	5 4 22	1 3 02	10 27 54	10 19 23	10 19 54	10 21 44
14	13 11	7 20 58	5 4 08	1 4 17	10 29 53	10 21 52	10 23 36	10 25 28
16	15 11	7 20 59	5 3 51	1 5 33	11 1 53	10 24 22	10 27 21	10 29 16
18	18 11	7 21 01	5 3 35	1 6 48	11 3 52	10 26 51	11 1 12	11 3 08
20	20 11	7 21 02	5 3 20	1 8 03	11 5 51	10 29 20	11 5 06	11 7 05
22	22 11	7 21 02	5 3 04	1 9 19	11 7 50	11 1 50	11 9 05	11 11 05
24	24 11	7R 21 03	5 2 49	1 10 34	11 9 49	11 4 19	11 13 06	11 15 08
26	26 11	7 21 02	5 2 33	1 11 39	11 11 48	11 6 48	11 17 10	11 19 12
28	27 11	7 21 02	5 2 18	1 13 05	11 13 47	11 9 17	11 21 14	11 23 15
30	29 11	7 21 01	5 2 03	1 14 20	11 15 46	11 11 46	11 25 16	11 27r16
Apr. 1	1 12	7 20 59	5 1 49	1 15 36	11 17 44	11 14 15	11 29 14	0 1 11
3	3 12	7 20 58	5 1 34	1 16 51	11 19 43	11 16 44	0 3 05	0 4 57
5	5 12	7 20 55	5 1 20	1 18 07	11 21 41	11 19 13	0 6 46	0 8 31
7	7 12	7 20 53	5 1 07	1 19 22	11 23 39	11 21 42	0 10 13	0 11 51
9	9 12	7 20 50	5 0 54	1 20 38	11 25 37	11 24 11	0 13 25	0 14 54
11	12 12	7 20 47	5 0 41	1 21 53	11 27 35	11 26 39	0 16 18	0 17 38
13	14 12	7 20 43	5 0 29	1 23 09	11 29 32	11 29 08	0 18 52	0 20 00
15	16 12	7 20 39	5 0 17	1 24 24	0 1 30	0 1 36	0 21 03	0 22 00
17	18 12	7 20 35	5 0 06	1 25 39	0 3 27	0 4 05	0 22 52	0 23 88

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Ayanamsa on 1st Jan. : 23° 15' 44"

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Apr 17	18	12	7R20 35	5R0 06	1 25 39	0 3 27	0 4 05	0 22 52	0 23 38
19	20	12	7 20 30	4 29 55	1 26 55	0 5 24	0 6 33	0 24 17	0 24 51
21	22	12	7 20 25	4 29 45	1 28 10	0 7 21	0 9 02	0 25 19	0 25 41
23	24	12	7 20 19	4 29 35	1 29 26	0 9 18	0 11 30	0 25 57	0 26 07
25	26	12	7 20 14	4 29 27	2 0 41	0 11 15	0 13 58	0R26 11	0 26 09
27	28	12	7 20 08	4 29 18	2 1 56	0 13 12	0 16 26	0 26 02	0 25 50
29	30	12	7 20 01	4 29 11	2 3 12	0 15 09	0 18 55	0 25 33	0 25 12
May 1	2	1	7 19 55	4 29 04	2 4 27	0 17 05	0 21 23	0 24 47	0 24 18
3	4	1	7 19 48	4 28 58	2 5 42	0 19 02	0 23 51	0 23 46	0 23 12
5	6	1	7 19 41	4 28 52	2 6 58	0 20 58	0 26 19	0 22 36	0 21 58
7	8	1	7 19 34	4 28 48	2 8 13	0 22 54	0 28 47	0 21 21	0 20 44
9	10	1	7 19 26	4 28 44	2 9 28	0 24 50	1 1 14	0 20 08	0 19 33
11	12	1	7 19 18	4 28 40	2 10 44	0 26 46	1 3 42	0 19 00	0 18 30
13	14	1	7 19 10	4 28 38	2 11 59	0 28 42	1 6 10	0 18 03	0 17 40
15	17	1	7 19 02	4 28 36	2 13 14	1 0 38	1 8 37	0 17 20	0 17 04
17	19	1	7 18 54	4 28 35	2 14 29	1 2 33	1 11 05	0 16 53	0 16 46
19	21	1	7 18 46	4D28 34	2 15 44	1 4 29	1 13 33	0D16 43	0 16 46
21	22	1	7 18 37	4 28 35	2 17 00	1 6 24	1 16 00	0 16 52	0 17 03
23	24	1	7 18 29	4 28 36	2 18 15	1 8 20	1 18 27	0 17 19	0 17 39
25	26	1	7 18 20	4 28 37	2 19 30	1 10 15	1 20 55	0 18 03	0 18 32
27	28	1	7 18 11	4 28 40	2 20 45	1 12 10	1 23 22	0 19 05	0 19 42
29	30	1	7 18 02	4 28 43	2 22 00	1 14 05	1 25 49	0 20 22	0 21 07
31	2	2	7 17 53	4 28 47	2 23 16	1 16 01	1 28 17	0 21 55	0 22 47
June 2	4	2	7 17 44	4 28 52	2 24 31	1 17 56	2 0 44	0 23 42	0 24 41
4	7	2	7 17 35	4 28 57	2 25 46	1 19 50	2 3 11	0 25 43	0 26 49
6	9	2	7 17 27	4 29 03	2 27 01	1 21 45	2 5 38	0 27 57	0 29 09
8	11	2	7 17 18	4 29 09	2 28 16	1 23 40	2 8 05	1 0 24	1 1 42
10	13	2	7 17 09	4 29 17	2 29 31	1 25 35	2 10 32	1 3 03	1 4 26
12	15	2	7 17 00	4 29 25	3 0 47	1 27 29	2 12 59	1 5 53	1 7 23
14	17	2	7 16 52	4 29 33	3 2 02	1 29 24	2 15 25	1 8 56	1 10 31
16	19	2	7 16 43	4 29 43	3 3 17	2 1 19	2 17 52	1 12 09	1 13 51
18	21	2	7 16 35	4 29 52	3 4 32	2 3 13	2 20 19	1 15 35	1 17 22
20	23	2	7 16 27	5 0 03	3 5 47	2 5 08	2 22 46	1 19 11	1 21 03
22	24	2	7 16 18	5 0 14	3 7 02	2 7 02	2 25 12	1 22 58	1 24 55
24	26	2	7 16 10	5 0 25	3 8 17	2 8 57	2 27 39	1 26 55	1 28 56
26	28	2	7 16 03	5 0 38	3 9 33	2 10 51	3 0 05	2 1 00	2 3 05
28	1	3	7 15 55	5 0 50	3 10 48	2 12 46	3 2 32	2 5 12	2 7 21
30	3	3	7 15 48	5 1 04	3 12 03	2 14 40	3 4 58	2 9 30	2 11 40
July 2	5	3	7 15 41	5 1 17	3 13 18	2 16 35	3 7 24	2 13 51	2 16 01
4	7	3	7 15 34	5 1 32	3 14 34	2 18 29	3 9 51	2 18 12	2 20 22
6	10	3	7 15 27	5 1 47	3 15 49	2 20 23	3 12 17	2 22 32	2 24 40
8	12	3	7 15 21	5 2 02	3 17 04	2 22 18	3 14 43	2 26 48	2 28 54
10	14	3	7 15 15	5 2 18	3 18 19	2 24 12	3 17 09	3 0 59	3 3 03
12	16	3	7 15 09	5 2 34	3 19 35	2 26 06	3 19 35	3 5 05	3 7 05
14	17	3	7 15 04	5 2 51	3 20 50	2 28 01	3 22 01	3 9 04	3 11 01
16	19	3	7 14 09	5 3 08	3 22 06	2 29 55	3 24 27	3 12 56	3 14 09
18	21	3	7 14 54	5 3 26	3 23 21	3 1 50	3 26 52	3 16 41	3 18 31
20	23	3	7 14 50	5 3 44	3 24 36	3 3 44	3 29 18	3 20 18	3 22 01
22	25	3	7 14 46	5 4 02	3 25 52	3 5 39	4 1 43	3 23 49	3 25 31
24	27	3	7 14 42	5 4 21	3 27 07	3 7 33	4 4 09	3 27 12	3 28 50
26	29	3	7 14 30	5 4 40	3 28 23	3 9 28	4 6 34	4 0 27	4 2 03
28	1	4	7 14 35	5 5 00	3 29 39	3 11 23	4 9 00	4 3 36	4 5 08
30	4	4	7 14 33	5 5 20	4 0 54	3 13 18	4 11 26	4 6 37	4 8 05
Aug. 1	6	4	7 14 31	5 5 40	4 2 10	3 15 12	4 13 50	4 9 31	4 10 56

Ayanamsa on 1st Jan. : 23° 15′ 44″

Date	Tithi & Month		*Nirayaṅa* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	6	4	7R14 31	5 5 40	4 2 10	3 15 12	4 13 50	4 9 31	4 10 56
3	8	4	7 14 29	5 6 01	4 3 26	3 17 07	4 16 15	4 12 18	4 13 38
5	10	4	7 14 27	5 6 22	4 4 41	3 19 02	4 18 40	4 14 57	4 16 13
7	12	4	7 14 26	5 6 43	4 5 57	3 20 57	4 21 04	4 17 27	4 18 39
9	14	4	7 14 25	5 7 04	4 7 13	3 22 52	4 23 29	4 19 49	4 20 57
11	16	4	7 14 25	5 7 26	4 8s29	3 24 47	4 25 53	4 22 02	4 23 05
13	18	4	7D14 25	5 7 48	4 9 45	3 26 42	4 28 18	4 24 05	4 25 02
15	20	4	7 14 25	5 8 11	4 11 01	3 28 37	5 0 42	4 25 56	4 26 48
17	21	4	7 14 26	5 8 34	4 12 17	4 0 33	5 3 06	4 27 36	4 28 21
19	23	4	7 14 27	5 8 57	4 13 33	4 2 28	5 5 30	4 29 02	4 29 40
21	25	4	7 14 29	5 9 20	4 14 49	4 4 24	5 7 53	5 0 14	5 0 43
23	28	4	7 14 31	5 9 43	4 16 06	4 6 19	5 10 17	5 1 08	5 1 28
25	30	4	7 14 33	5 10 07	4 17 22	4 8 15	5 12 41	5 1 44	5 1 54
27	2	5	7 14 36	5 10 31	4 18 39	4 10 11	5 15 04	5R1 58	5 1 58
29	5	5	7 14 39	5 10 55	4 19 55	4 12 07	5 17 27	5 1 51	5 1 38
31	7	5	7 14 42	5 11 19	4 21 12	4 14 03	5 19 50	5 1 19	5 0 51
Sept. 2	9	5	7 14 46	5 11 43	4 22 28	4 15 59	5 22 13	5 0 22	4 29 45
4	11	5	7 14 50	5 12 08	4 23 45	4 17 55	5 24 35	4 29 02	4 28s14
6	13	5	7 14 55	5 12 33	4 25 02	4 19 52	5 26 58	4 27 22	4 26 26
8	14	5	7 15 00	5 12 58	4 26 19	4 21 48	5 29 20	4 25 28	4 24☌28
10	16	5	7 15 05	5 13 23	4 27 35	4 23 46	6 1 42	4 23 28	4 22 29
12	18	5	7 15 11	5 13 48	4 28 52	4 25 44	6 4 04	4 21 33	4 20 40
14	20	5	7 15 17	5 14 13	5 0 10	4 27 38	6 6 25	4 19 53	4 19r13
16	22	5	7 15 23	5 14 39	5 1 27	4 29 35	6 8 46	4 18 40	4 18 15
18	24	5	7 15 30	5 15 04	5 2 44	5 1 32	6 11 07	4 17 59	4D17 53
20	26	5	7 15 37	5 15 30	5 4☌01	5 3 29	6 13 28	4 17 56	4 18 09
22	28	5	7 15 44	5 15 55	5 5 19	5 5 27	6 15 49	4 18 32	4 19 04
24	1	6	7 15 52	5 16s21	5 6 36	5 7 24	6 18 09	4 19 45	4 20 35
26	3	6	7 16 00	5 16 47	5 7 54	5 9 22	6 20 29	4 21 32	4 22 37
28	5	6	7 16 08	5 17 13	5 9 12	5 11 20	6 22 49	4 23 48	4 25 05
30	7	6	7 16 17	5 17 39	5 10 30	5 13 18	6 25 08	4 26 27	4 27 54
Oct. 2	9	6	7 16 26	5 18 05	5 11 48	5 15 16	6 27 27	4 29 25	5 0 59
4	11	6	7 16 35	5 18 31	5 13 06	5 17 14	6 29 46	5 2 36	5 4 15
6	13	6	7 16 45	5 18☌57	5 14 24	5 19 12	7 2 05	5 5 56	5 7 39
8	15	6	7 16 54	5 19 23	5 15 42	5 21 10	7 4 23	5 9s22	5 11 06
10	17	6	7 17 04	5 19 49	5 17 00	5 23 09	7 6 40	5 12 51	5 14 36
12	18	6	7 17 15	5 20 15	5 18 19	5 25 08	7 8 57	5 16 21	5 18 06
14	20	6	7 17 25	5 20 40	5 19 37	5 27 06	7 11 14	5 19 51	5 21 36
16	22	6	7 17 36	5 21 06	5 20 56	5 29 05	7 13 30	5 23 20	5 25 04
18	25	6	7 17 47	5 21 32	5 22 15	6 1 04	7 15 46	5 26 48	5 28 30
20	27	6	7 17 58	5 21 58	5 23 34	6 3 04	7 18 01	6 0 13	6 1 55
22	29	6	7 18 10	5 22 24	5 24 53	6 5 03	7 20 16	6 3 36	6 5 17
24	1	7	7 18 21	5 22 49	5 26 12	6 7 03	7 22 30	6 6☌57	6 8 36
26	4	7	7 18 33	5 23 15	5 27 31	6 9 02	7 24 43	6 10 15	6 11 54
28	6	7	7 18 45	5 23 40	5 28 50	6 11 02	7 26 56	6 13 32	6 15 09
30	8	7	7 18 58	5 24 06	6 0 10	6 13 02	7 29 08	6 16 46	6 18 22
Nov. 1	9	7	7 19 10	5 24 31	6 1 29	6 15 02	8 1 20	6 19 58	6 21 34
3	11	7	7 19 23	5 24 56	6 2r49	6 17 02	8 3 30	6 23 09	6 24 43
5	13	7	7 19 35	5 25 27	6 4 09	6 19 02	8 5 40	6 26 18	6 27 51
7	15	7	7 19 48	5 25 46	6 5 29	6 21 03	8 7 48	6 29 25	7 0 58
9	17	7	7 20 01	5 26 10	6 6 49	6 23 03	8 9 56	7 2 30	7 4 03
11	19	7	7 20 15	5 26 35	6 8 09	6 25 04	8 12 03	7 5 35	7 7 07
13	21	7	7 20 28	5 26 59	6 9 29	6 27 04	8 14 08	7 8 38	7 10r09
15	23	7	7 20 41	5 27 23	6 10 49	6 29 05	8 16 12	7 11 40	7 13 10

Longitudes of Planets

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ गु	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	23	7	7 20 41	5 27 23	6 10 49	6 29 05	8 16 12	7 11 40	7 13 10
17	25	7	7 20 55	5 27 47	6 12 10	7 1 06	8 18 15	7 14 40	7 16 10
19	28	7	7 21 09	5 28 11	6 13 31	7 3 07	8 20 16	7 17 39	7 19 08
21	30	7	7 21 22	5 28 34	6 14 51	7 5 08	8 22 16	7 20 37	7 22 05
23	2	8	7 21 36	5 28 57	6 16 12	7 7 10	8 24 14	7 23 33	7 25 00
25	4	8	7 21s50	5 29 20	6 17 33	7 9 11	8 26 11	7 26 25	7 27 52
27	6	8	7 22 04	5 29 42	6 18 54	7 11 13	8 28 05	7 29 17	8 0 42
29	8	8	7 22 18	6 0 05	6 20 16	7 13 14	8 29 57	8 2 05	8 3 27
Dec. 1	10	8	7 22 32	6 0 27	6 21 37	7 15 16	9 1 47	8 4 48	8 6 07
3	11	8	7 22 46	6 0 48	6 22 59	7 17 17	9 3 35	8 7 24	8 8 40
5	13	8	7 23 01	6 1 10	6 24 20	7 19 19	9 5 20	8 9 53	8 11 03
7	15	8	7 23 15	6 1 31	6 25 42	7 21 21	9 7 01	8 12 10	8 13 14
9	17	8	7 23☌29	6 1 51	6 27 04	7 23 23	9 8 40	8 14 13	8 15 08
11	19	8	7 23 43	6 2 12	6 28 26	7 25 25	9 10 15	8 15 57	8 16 40
13	22	8	7 23 57	6 2 32	6 29 48	7 27 27	9 11 47	8 17 16	8 17 45
15	24	8	7 24 12	6 2 51	7 1 10	7 29 29	9 13 15	8 18 04	8R18 14
17	26	8	7 24 26	6 3 10	7 2 33	8 1 31	9 14 38	8 18 14	8 18 02
19	28	8	7 24 40	6 3 29	7 3 55	8 3 33	9 15 56	8 17 39	8 17 04
21	30	8	7 24 54	6 3 47	7 5 18	8 5 35	9 17 10	8 16s18	8 16 21
23	2	9	7 25r08	6 4 05	7 6 41	8 7 37	9 18 18	8 14 15	8 13 01
25	4	9	7 25 22	6 4 22	7 8 04	8 9 40	9 19 20	8 11☌42	8 10 19
27	6	9	7 25 36	6 4 39	7 9 27	8 11 42	9 20 15	8 8 57	8 7 38
29	8	9	7 25 49	6 4 55	7 10 50	8 13 44	9 21 03	8 6 24	8 5r17
31	10	9	7 26 03	6 5 11	7 12 14	8 15 47	9 21 44	8 4 19	8 3 30
Jan. 2	12	9	7 26 17	6 5 26	7 13 37	8 17 49	9 22 17	8 2 52	8 2 24

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	7 5 7	7 3 27	3R12 42	6 9 2	4R 6 58	23 15 44
February	1	7 2 30	7 1 49	3 11 23	6 9 20	4 6 21	23 15 49
March	1	6 29 17	7 0 19	3 10 18	6 R 9 9	4 5 39	23 15 52
April	1	6 26 55	6 28 41	3 9 38	6 8 31	4 5 0	23 15 54
May	1	6 26 25	6 27 6	3D 9 47	6 7 43	4 4 40	23 15 57
June	1	6 26 26	6 25 27	3 10 44	6 6 59	4D 4 46	23 16 2
July	1	6 25 25	6 23 52	3 12 14	6 6 36	4 5 19	23 16 7
August	1	6 22 41	6 22 13	3 14 6	6D 6 40	4 6 10	23 16 11
September	1	6 19 28	6 20 34	3 15 57	6 7 14	4 7 9	23 16 15
October	1	6 17 37	6 18 59	3 17 24	6 8 9	4 8 4	23 16 17
November	1	6 17 21	6 17 20	3 18 16	6 9 17	4 8 45	23 16 20
December	1	6 17 15	6 15 45	3R18 18	6 10 21	4 9 2	23 16 25
January	1	6 15 30	6 14 7	3 17 32	6 11 10	4 R 8 50	23 16 30

Combustion or Heliacal Setting of Planets

Saturn : From Nov. 24 to Dec. 22

Jupiter : From Sept. 21 to Oct. 16

Mars : From July 28 to Nov. 2

Venus : From Mar. 6 to May 8

Mercury : From Jan. 6 to Jan 14, Feb. 26 to Apr. 1, Apr. 29 to May 17, June 21 to July 17, Aug. 29 to Sept. 15, Oct. 7 to Nov. 20, Dec. 19 to Feb. 8 (1958).

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Jan.	1,	18	45	9	4	9	Jan.	21,	25	39	8	18	0
	Apr.	25,	11	8	0	26	11	May	19,	6	34	0	16	43
	Aug.	27,	13	29	5	1	59	Sept.	19,	9	6	4	17	53
	Dec.	16,	16	28	8	18	15	—		—			—	
Venus	—		—			—		—		—			—	
Mars	—		—			—		—		—			—	
Jupiter	Jan.	16,	13	30	5	8	32	May	19,	7	30	4	28	34
Saturn	Mar.	24,	5	30	7	21	3	Aug.	12,	5	30	7	14	25
Uranus	—		—			—		Apr.	10,	13	30	3	9	36
	Nov.	17,	12	37	3	18	24	—		—			—	
Neptune	Feb.	2,	22	27	6	9	20	July	11,	25	8	6	6	33
Pluto	—		—			—		May	8,	26	30	4	4	40
	Dec.	3,	19	30	4	9	1	—		—			—	

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	1	7	43	Pauṣa	Sukla	Jan.	16	11	51	Māgha	Vadi
Jan.	30	26	54	Māgha	..	Feb.	14	22	8	Phālguna	..
Mar.	1	21	42	Phālguna	..	Mar.	16	7	52	Caitra	..
Mar.	31	14	49	Caitra	..	Apr.	14	17	39	Vaiśākha	..
Apr.	29	29	24	Vaiśākha	..	May	13	28	4	Jyaiṣṭha	..
May	29	17	9	Jyaiṣṭha	..	June	12	15	32	Āṣāḍha	..
June	27	26	23	Āṣāḍha	..	July	11	28	20	Śrāvaṇa	..
July	27	9	58	Śrāvaṇa	..	Aug.	10	18	38	Bhādra	..
Aug.	25	17	2	Bhādra	..	Sept.	9	10	25	Āśvina	..
Sept.	23	24	48	Āśvina	..	Oct.	8	27	12	Kārtika	..
Oct.	23	10	13	Kārtika	..	Nov.	7	20	2	Agrahā	..
Nov.	21	21	49	Agrahā	..	Dec.	7	11	46	Pauṣa	..
Dec.	21	11	42	Pauṣa	..	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	22	18	Karkaṭa	on	July	16	7	30
Kumbha	on	Feb.	12	11	18	Siṁha	on	Aug.	16	15	53
Mīna	on	Mar.	14	8	15	Kanyā	on	Sept.	16	15	44
Meṣa	on	Apr.	13	16	51	Tulā	on	Oct.	16	27	34
Vṛṣa	on	May	14	13	50	Vṛścika	on	Nov.	15	27	15
Mithuna	on	June	14	20	33	Dhanus	on	Dec.	15	17	49

1958 A.D. Longitude of Moon CONDENSED

Saka era 1879-80, Samvat 2014-15 (Mar. 21, Nov. 12), B.S 1364-65 (Apr. 14).
Kollam era 1133-34 (Aug. 17), 32 Vilamba (Mar. 21, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च) ৮) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.29	14	9	11	11	33	11	23	25	0	5	24	0	17	37	1	0	9	1	13	1	1	26	18
Jan. 5	21	9	2	9	58	2	24	0	3	8	19	3	22	48	4	7	21	4	21	51	5	6	13
12	28	9	5	20	24	6	4	24	6	18	11	7	1	46	7	15	11	7	28	26	8	11	29
19	5	10	8	24	22	9	7	3	9	19	32	10	1	49	10	13	55	10	25	51	11	7	41
26	12	10	11	19	28	0	1	18	0	13	15	0	25	25	1	7	53	1	20	45	2	4	4
Feb. 2	19	10	2	17	52	3	2	7	3	16	44	4	1	37	4	16	37	5	1	33	5	16	18
9	26	10	6	0	46	6	14	54	6	28	43	7	12	12	7	25	25	8	8	23	8	21	8
16	4	11	9	3	41	9	16	5	9	28	19	10	10	25	10	22	23	11	4	15	11	16	3
23	11	11	11	27	50	0	9	39	0	21	35	1	3	43	1	16	8	1	28	55	2	12	8
Mar 2	18	11	2	25	51	3	10	3	3	24	43	4	9	43	4	24	55	5	10	9	5	25	14
9	25	11	6	10	3	6	24	28	7	8	29	7	22	5	8	5	19	8	18	12	9	0	47
16	2	12	9	13	9	9	25	20	10	7	23	10	19	19	11	1	10	11	12	59	11	24	47
23	9	12	0	6	36	0	18	29	1	0	29	1	12	40	1	25	7	2	7	52	2	21	0
30	16	12	3	4	34	3	18	35	4	3	2	4	17	53	5	2	59	5	18	13	6	3	25
Apr. 6	23	12	6	18	24	7	3	3	7	17	18	8	1	6	8	14	27	8	27	24	9	10	0
13	30	12	9	22	19	10	4	24	10	16	20	10	28	11	11	9	59	11	21	46	0	3	37
20	7	1	0	15	32	0	27	35	1	9	46	1	22	8	2	4	43	2	17	35	3	0	44
27	14	1	3	14	14	3	28	5	4	12	17	4	26	49	5	11	37	5	26	34	6	11	34
May 4	21	1	6	26	28	7	11	8	7	25	28	8	9	23	8	22	52	9	5	56	9	18	36
11	28	1	10	0	56	10	13	1	10	24	56	11	6	44	11	18	32	0	0	22	0	12	17
18	4	2	0	24	22	1	6	36	1	19	3	2	1	43	2	14	36	2	27	43	3	11	4
25	11	2	3	24	39	4	8	28	4	22	31	5	6	46	5	21	13	6	5	47	6	20	24
June 1	18	2	7	4	58	7	19	24	8	3	35	8	17	27	9	0	55	9	14	0	9	26	42
8	25	2	10	9	4	10	21	11	11	3	6	11	14	55	11	26	44	0	8	36	0	20	38
15	32	2	1	2	51	1	15	19	1	28	3	2	11	3	2	24	19	3	7	49	3	21	30
22	7	3	4	5	21	4	19	19	5	3	22	5	17	30	6	1	41	6	15	54	7	0	7
29	14	3	7	14	16	7	28	18	8	12	9	8	25	45	9	9	3	9	22	2	10	4	40
July 6	21	3	10	17	1	10	29	7	11	11	2	11	22	51	0	4	40	0	16	34	0	28	39
13	28	3	1	10	59	1	23	36	2	6	35	2	19	54	3	3	33	3	17	28	4	1	34
20	4	4	4	15	48	5	0	4	5	14	19	5	28	30	6	12	37	6	26	37	7	10	31
27	11	4	7	24	17	8	7	55	8	21	22	9	4	36	9	17	36	10	0	21	10	12	50
Aug. 3	18	4	10	25	4	11	7	6	11	18	59	0	0	47	0	12	36	0	24	30	1	6	35
10	25	4	1	18	56	2	1	38	2	14	43	2	28	14	3	12	8	3	26	24	4	10	54
17	32	4	4	25	33	5	10	13	5	24	47	6	9	13	6	23	26	7	7	25	7	21	10
24	7	5	8	4	41	8	18	0	9	1	5	9	13	57	9	26	37	10	9	5	10	21	21
31	14	5	11	3	26	11	15	22	11	27	12	0	8	59	0	20	46	1	2	40	1	14	44
Sept.7	21	5	1	27	3	2	9	44	2	22	48	3	6	19	3	20	18	4	4	42	4	19	26
14	28	5	5	4	23	5	19	24	6	4	21	6	19	7	7	3	35	7	17	44	8	1	31
21	4	6	8	14	58	8	28	6	9	10	57	9	23	32	10	5	55	10	18	8	11	0	11
28	11	6	11	12	7	11	23	57	0	5	45	0	17	32	0	29	22	1	11	17	1	23	22
Oct. 5	18	6	2	5	41	2	18	18	3	1	16	3	14	41	3	28	32	4	12	50	4	27	32
12	25	6	5	12	33	5	27	43	6	12	55	6	27	58	7	12	44	7	27	8	8	11	6
19	2	7	8	24	38	9	7	46	9	20	31	10	2	58	10	15	11	10	27	12	11	9	6
26	9	7	11	20	56	0	2	43	0	14	32	0	26	22	1	8	18	1	20	20	2	2	32
Nov. 2	16	7	2	14	56	2	27	34	3	10	33	3	23	47	4	7	26	4	21	29	5	5	56
9	23	7	5	20	44	6	5	47	6	20	56	7	6	4	7	20	58	8	5	35	8	19	44
16	30	7	9	3	26	9	16	39	9	29	27	10	11	53	10	24	2	11	5	59	11	17	49
23	7	8	11	29	36	0	11	23	0	23	15	1	5	12	1	17	18	1	29	34	2	12	0
30	14	8	2	24	37	3	7	26	3	20	28	4	3	45	4	17	18	5	1	9	5	15	18
Dec. 7	21	8	5	29	44	6	14	24	6	29	15	7	14	8	7	28	56	8	13	29	8	27	42
14	28	8	9	11	28	9	24	47	10	7	40	10	20	9	11	2	20	11	14	17	11	26	6
21	5	9	0	7	53	0	19	42	1	1	37	1	13	43	1	26	1	2	8	32	2	21	16
28	12	9	3	4	14	3	17	23	4	0	44	4	14	14	4	27	54	5	11	43	5	25	42
Jan. 4	19	9	6	9	51	6	24	9	7	8	34	7	23	1	8	7	25	8	21	39	9	5	39

Ayanamsa on 1st Jan : 23° 16′ 30″

Date	Tithi & Month	श ♄ नि	गु ♃ रु	मं ♂ ल	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	11 9	7 26 10	6 5 19	7 12 55	8 16 48	9 22 02	8R 3 30	8 2 52
3	13 9	7 26 23	6 5 34	7 14 19	8 18 50	9 22 30	8 2 24	9 2 06
5	15 9	7 26 37	6 5 48	7 15 42	8 20 52	9 22 50	8D1 58	8 1 59
7	17 9	7 26 50	6 6 02	7 17 06	8 22 55	9R23 00	8 2 09	8 2 27
9	19 9	7 27 03	6 6 15	7 18 30	8 24 57	9 23 01	8 2 52	8 3 23
11	21 9	7 27 16	6 6 28	7 19 54	8 26 59	9 22 51	8 4 00	8 4 42
13	23 9	7 27 29	6 6 40	7 21 18	8 29 01	9 22 32	8 5 29	8 6 21
15	26 9	7 27 42	6 6 52	7 22 43	9 1 04	9 22 02	8 7 16	8 8 14
17	28 9	7 27 54	6 7 03	7 24 17	9 3 06	9 21 23	8 9 16	8 10 20
19	30 9	7 28 07	6 7 13	7 25 32	9 5 08	9 20 35	8 11 27	8 12 36
21	2 10	7 28 19	6 7 23	7 26 56	9 7 10	9 19 39	8 13 47	8 15 00
23	3 10	7 28 31	6 7 32	7 28 21	9 9 12	9 18 36	8 16 15	8 17 31
25	5 10	7 28 43	6 7 40	7 29 46	9 11 14	9 17s28	8 14 49	8 20 08
27	7 19	7 28 54	6 7 47	8 1 11	9 13 16	9 16 15	8 21 28	8 22 49
29	9 10	7 29 06	6 7 54	8 2 36	9 15 18	9 15☌01	8 24 12	8 25 35
31	11 10	7 29 17	6 8 00	8 4 02	9 17 20	9 13r47	8 27 00	8 28 25
Feb. 2	13 10	7 29 28	6 8 06	8 5 27	9 19 22	9 12 36	8 29 51	9 1 19
4	15 10	7 29 38	6 8 11	8 6 52	9 21 24	9 11 29	9 2 47	9 4 16
6	17 10	7 29 49	6 8 15	8 8 18	9 23 25	9 10 27	9 5 46	9 7 16
8	20 10	7 29 59	6 8 18	8 9 44	9 25 27	9 9 34	9 8s48	9 10 20
10	22 10	8 0 08	6 8 20	8 11 10	9 27 28	9 8 49	9 11 53	9 13 27
12	24 10	8 0 18	6 8 22	8 12 36	9 29 30	9 8 13	9 15 02	9 16 37
14	26 10	8 0 27	6R8 23	8 14 02	10 1 31	9 7 47	9 18 14	9 19 51
16	28 10	8 0 36	6 8 23	8 15 28	10 3 32	9 7 31	9 21 29	9 23 08
18	30 10	8 0 45	6 8 23	8 16 55	10 5 33	9D7 25	9 24 48	9 26 23
20	2 11	8 0 53	6 8 21	8 18 21	10 7 34	9 7 28	9 28 11	9 29 53
22	4 11	8 1 01	6 8 19	8 19 48	10 9 35	9 7 41	10 1 37	10 3 21
24	5 11	8 1 09	6 8 17	8 21 14	10 11 36	9 8 03	10 5 07	10 6 53
26	7 11	8 1 16	6 8 13	8 22 41	10 13 37	9 8 33	10 8 41	10 10 29
28	9 11	8 1 23	6 8 09	8 24 08	10 15 37	9 9 11	10 12 19	10 14 09
Mar. 2	11 11	8 1 30	6 8 04	8 25 35	10 17 38	9 9 57	10 16 01	10 17☌53
4	13 11	8 1 36	6 7 58	8 27 02	10 19 38	9 10 49	10 19 46	10 21 41
6	16 11	8 1 42	6 7 52	8 28 29	10 21 38	9 11 48	10 23 36	10 25 31
8	18 11	8 1 48	6 7 44	8 29 56	10 23 38	9 12 58	10 27 28	10 29 25
10	20 11	8 1 53	6 7 37	9 1 24	10 25 38	9 14 04	11 1 22	11 3 20
12	23 11	8 1 58	6 7 28	9 2 51	10 27 38	9 15 19	11 5 17	11 7 15
14	25 11	8 2 02	6 7 19	9 4 19	10 29 38	9 16 40	11 9 12	11 11 08
16	26 11	8 2 06	6 7 09	9 5 46	11 1 37	9 18 05	11 13r01	11 14 57
18	28 11	8 2 10	6 6 59	9 7 14	11 3 37	9 19 33	11 16 49	11 18 39
20	30 11	8 2 13	6 6 48	9 8 42	11 5 36	9 21 06	11 20 26	11 22 10
22	2 12	8 2 16	6 6 36	9 10 10	11 7 35	9 22 42	11 23 50	11 25 26
24	4 12	8 2 19	6 6 24	9 11 38	11 9 34	9 24 21	11 25 58	11 28 24
26	6 12	8 2 21	6 6 12	9 13 06	11 11 33	9 26 02	11 29 46	0 1 01
28	8 12	8 2 23	6 5 59	9 14 34	11 13 32	9 27 47	0 2 11	0 3 14
30	10 12	8 2 24	6 5 46	9 16 02	11 15 31	9 29 34	0 4 11	0 5 01
Apr. 1	12 12	8 2 25	6 5 32	9 17 30	11 17 29	10 1 23	0 5 44	0 6 20
3	14 12	8R 2 26	6 5 18	9 18 58	11 19 27	10 3 14	0 6 48	0 7 10
5	16 12	8 2 28	6 5 03	9 20 26	11 21 26	10 5 07	0 7 25	0R 7 32
7	19 12	8 2 26	6 4 49	9 21 55	11 23 24	10 7 03	0 7 33	0 7 27
9	21 12	8 2 25	6 4 34	9 23 23	11 25 22	10 9 00	0 7 15	0 6s58
11	23 12	8 2 24	6 4 19	9 24 51	11 27 19	10 10 58	0 6 33	0 6 04
13	25 12	8 2 23	6 4 04	9 26 20	11 29 17	10 12 58	0 5 31	0 4 54
15	27 12	8 2 21	6 3 48	9 27 48	0 1 15	10 14 59	0 4 15	0 3☌33
17	29 12	8 2 19	6 3☌33	9 29 17	0 3 12	10 17 08	0 2 50	0 2 06

Ayanamsa on 1st Jan : 23° 16' 30"

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ न			बृ ♃ वृ			म ♂ म			र ☉ व			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Apr 17	29	12	8R	2	19	6R	3	33	9	29	17	0	3	12	10	17	02	0R	2	50	0	2	08
19	30	12	8	2	16	6	3	18	10	0	45	0	5	09	10	19	06	0	1	23	0	0	41
21	2	1	8	2	13	6	3	02	10	2	14	0	7	07	10	21	11	0	0	01	11	29	23
23	4	1	8	2	10	6	2	47	10	3	42	0	9	04	10	23	17	11	28	49	11	28	18
25	6	1	8	2	06	6	2	32	10	5	10	0	11	00	10	25	23	11	27	50	11	27r	28
27	8	1	8	2	02	6	2	17	10	6	39	0	12	57	10	27	31	11	27	09	11	26	56
29	10	1	8	1	58	6	2	02	10	8	07	0	14	54	10	29	40	11	26	47	11D	26	43
May 1	13	1	8	1	53	6	1	47	10	9	35	0	16	51	11	1	49	11	26	44	11	26	50
3	15	1	8	1	48	6	1	33	10	11	04	0	18	47	11	4	00	11	27	01	11	27	16
5	17	1	8	1	43	6	1	19	10	12	32	0	20	43	11	6	10	11	27	36	11	28	00
7	19	1	8	1	37	6	1	06	10	14	00	0	22	39	11	8	22	11	28	29	11	29	01
9	21	1	8	1	31	6	0	52	10	15	28	0	24	35	11	10	34	11	29	38	0	0	18
11	23	1	8	1	25	6	0	40	10	16	56	0	26	31	11	12	47	0	1	03	0	1	50
13	25	1	8	1	18	6	0	27	10	18	24	0	28	27	11	15	01	0	2	41	0	2	36
15	27	1	8	1	11	6	0	15	10	19	52	1	0	23	11	17	15	0	4	34	0	5	34
17	29	1	8	1	04	6	0	04	10	21	20	1	2	19	11	19	29	0	6	38	0	7	45
19	1	2	8	0	57	5	29	53	10	22	47	1	4	14	11	21	44	0	8	54	0	10	06
21	3	2	8	0	50	5	29	43	10	24	15	1	6	10	11	24	00	0	11	21	0	12	39
23	5	2	8	0	42	5	29	33	10	25	42	1	8	05	11	25	15	0	13	59	0	15	22
25	7	2	8	0	34	5	29	24	10	27	09	1	10	01	11	28	32	0	16	47	0	18	14
27	9	2	8	0	26	5	29	16	10	28	36	1	11	56	0	0	48	0	19	44	0	21	17
29	11	2	8	0	18	5	29	08	11	0	03	1	13	51	0	3	05	0	22	52	0	24	29
31	13	2	8	0	09	5	29	01	11	1	30	1	15	46	0	5	23	0	26	09	0	27	51
June 2	16	2	8	0	01	5	28	55	11	2	56	1	17	41	0	7	40	0	29	36	1	1	23
4	18	2	7	29	52	5	28	49	11	4	23	1	19	36	0	9	58	1	3s	12	1	5	04
6	20	2	7	29	44	5	28	44	11	5	49	1	21	31	0	12	17	1	6	58	1	8	54
8	22	2	7	29	35	5	28	40	11	7	15	1	23	26	0	14	35	1	10	52	1	12	53
10	24	2	7	29	26	5	28	36	11	8	40	1	25	20	0	16	54	1	14	55	1	17	00
12	25	2	7	29	17	5	28	33	11	10	06	1	27	15	0	19	13	1	19	06	1	21	14
14	27	2	7	29s	08	5	28	31	11	11	31	1	29	10	0	21	33	1	23	23	1	25	33
16	29	2	7	28	59	5	28	29	11	12	56	2	1	04	0	23	53	1	27	44	1	29	55
18	1	3	7	28	51	5	28	29	11	14	20	2	2	59	0	26	13	2	2☌	07	2	4	19
20	3	3	7	28	42	5D	28	29	11	15	44	2	4	54	0	28	33	2	6	30	2	8	41
22	5	3	7	28	33	5	28	29	11	17	08	2	6	48	1	0	53	2	10	52	2	13	01
24	8	3	7	28	24	5	28	31	11	18	31	2	8	43	1	3	14	2	15	09	2	17	16
26	10	3	7	28	16	5	28	33	11	19	54	2	10	37	1	5	35	2	19	21	2	21	25
28	12	3	7	28	07	5	28	36	11	21	17	2	12	31	1	7	56	2	23	26	2	25	26
30	14	3	7	27	59	5	28	39	11	22	39	2	14	26	1	10	18	2	27r	24	2	29	20
July 2	16	3	7	27	51	5	28	43	11	24	01	2	16	20	1	12	39	3	1	14	3	3	06
4	18	3	7	27	43	5	28	48	11	25	22	2	18	14	1	15	01	3	4	56	3	6	44
6	20	3	7	27	35	5	28	54	11	26	43	2	20	09	1	17	23	3	8	30	3	10	14
8	22	3	7	27	27	5	29	00	11	28	03	2	22	03	1	19	45	3	11	56	3	13	35
10	24	3	7	27	20	5	29	07	11	29	23	2	23	58	1	22	08	3	15	13	3	16	48
12	26	3	7	27	12	5	29	15	0	0	43	2	25	52	1	24	30	3	18	22	3	19	53
14	28	3	7	27	05	5	29	23	0	2	01	2	27	47	1	26	53	3	21	23	3	22	50
16	30	3	7	26	58	5	29	32	0	3	20	2	29	41	1	29	16	3	24	15	3	25	38
18	2	4	7	26	52	5	29	41	0	4	37	3	1	36	2	1	40	3	26	59	3	28	17
20	4	4	7	26	45	5	29	51	0	5	54	3	3	30	2	4	03	3	29	33	4	0	47
22	6	4	7	26	39	6	0	02	0	7	10	3	5	25	2	6	27	4	1	58	4	3	07
24	8	4	7	26	34	6	0	14	0	8	25	3	7	19	2	8	51	4	4	14	4	5	17
26	11	4	7	26	28	6	0	25	0	9	40	3	9	14	2	11	15	4	6	18	4	7	16
28	13	4	7	26	23	6	0	38	0	10	54	3	11	08	2	13	39	4	8	11	4	9	03
30	15	4	7	26	18	6	0	51	0	12	07	3	13	03	2	16	03	4	9	52	4	10	37
Aug. 1	17	4	7	26	14	6	1	04	0	13	19	3	14	58	2	18	28	4	11	19	4	11	57

Ayanamsa on 1st Jan. : 23° 16' 30"

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Aug. 1	17 4	7R26 14	6 1 04	0 13 19	3 14 58	2 18 28	4 11 19	4 11 57
3	19 4	7 26 10	6 1 19	0 14 30	3 16 53	2 20 53	4 12 31	4 13 01
5	21 4	7 26 06	6 1 33	0 15 41	3 18 48	2 23 18	4 13 27	4 13 48
7	22 4	7 26 03	6 1 48	0 16 50	3 20 42	2 25 43	4 14 05	4 14 16
9	24 4	7 26 00	6 2 04	0 17 59	3 22 37	2 28 08	4R14 23	4 14 24
11	26 4	7 25 57	6 2 20	0 19 06	3 24 33	3 0 34	4 14 21	4 14s11
13	28 4	7 25 55	6 2 37	0 20 13	3 26 28	3 3 00	4 13 57	4 13 36
15	30 4	7 25 53	6 2 54	0 21 18	3 28 23	3 5 25	4 13 11	4 12 40
17	3 4	7 25 51	6 3 11	0 22 22	4 0 18	3 7 52	4 12 04	4 11 24
19	5 4	7 25 50	6 3 29	0 23 25	4 2 14	3 10 18	4 10 39	4 9 51
21	7 4	7 25 49	6 3 48	0 24 26	4 4 09	3 12 44	4 9 01	4 8 08
23	9 4	7 25 49	6 4 06	0 25 26	4 6 05	3 15 11	4 7☌15	4 6 22
25	11 4	7D25 49	6 4 25	0 26 25	4 8 01	3 17 38	4 5 30	4 4 41
27	13 4	7 25 49	6 4 45	0 27 22	4 9 56	3 20 05	4 3 55	4 3 14
29	15 4	7 25 50	6 5 05	0 28 17	4 11 52	3 22 32	4 2r38	4 2 08
31	17 4	7 25 51	6 5 25	0 29 11	4 13 48	3 24 59	4 1 46	4 1 31
Sept 2	19 4	7 25 53	6 5 46	1 0 04	4 15 44	3 27 27	4D1 24	4 1 26
4	21 4	7 25 55	6 6 07	1 0 51	4 17 41	3 29 54	4 1 30	4 1 55
6	23 4	7 25 57	6 6 28	1 1 43	4 19 37	4 2 82	4 2 22	4 2 58
8	25 4	7 26 00	6 6 50	1 2 30	4 21 33	4 4 50	4 3 42	4 4 34
10	27 4	7 26 03	6 7 12	1 3 14	4 23 30	4 7 18	4 5 33	4 6 40
12	29 4	7 26 06	6 7 34	1 3 57	4 25 27	4 9 46	4 7 53	4 9 12
14	1 5	7 26 10	6 7 57	1 4 37	4 27 23	4 12 15	4 10 36	4 12 05
16	3 5	7 26 14	6 8 19	1 5 15	4 29 20	4 14 43	4 13 39	4 15 16
18	6 5	7 26 19	6 8 43	1 5 51	5 1 18	4 17 12	4 16 57	4 18 40
20	8 5	7 26 24	6 9 06	1 6 24	5 3 15	4 19 41	4 20 25	4 22s12
22	10 5	7 26 29	6 9 29	1 6 54	5 5 12	4 22 10	4 24 00	4 25 49
24	12 5	7 26 35	6 9 53	1 7 22	5 7 10	4 24 39	4 27 39	4 29 29
26	14 5	7 26 41	6 10 17	1 7 47	5 9 07	4 27 08	5 1 19	5 3 09
28	16 5	7 26 47	6 10 42	1 8 09	5 11 05	4 29 37	5 4 59	5 6 49
30	17 5	7 26 54	6 11 06	1 8 28	5 13 03	5 2 07	5 8 38	5 10 26
Oct. 2	19 5	7 27 01	6 11 31	1 8 44	5 15 00	5 4 36	5 12 14	5 14 01
4	21 5	7 27 01	6 11 56	1 8 57	5 16 59	5 7 06	5 15 48	5 17☌34
6	23 5	7 27 16	6 12 21	1 9 07	5 18 57	5 9 35	5 19 19	5 21 03
8	25 5	7 27 24	6 12 46	1 9 13	5 20 55	5 12 05	5 22 46	5 24 29
10	27 5	7 27 32	6 13 11	1R9 15	5 22 54	5 14 35	5 26 11	5 27 52
12	29 5	7 27 41	6 13 36	1 9 14	5 24 52	5 17 05	5 29 33	6 1 12
14	2 6	7 27 50	6 14 02	1 9 09	5 26 51	5 19 35	6 2 51	6 4 29
16	4 6	7 27 59	6 14 28	1 9 01	5 28 50	5 22 05	6 6 07	6 7 44
18	6 6	7 28 09	6 14 54	1 8 49	6 0 49	5 24s35	6 9 20	6 10 56
20	8 6	7 28 18	6 15 20	1 8 34	6 2 49	5 27 05	6 12 31	6 14 05
22	10 6	7 28 28	6 15s46	1 8 15	6 4 48	5 29 36	6 15 39	6 17 12
24	12 6	7 28 39	6 16 12	1 7 53	6 6 47	6 2 06	6 18 45	6 20 17
26	14 6	7 28 49	6 16 38	1 7 27	6 8 47	6 4 36	6 21 48	6 23 19
28	16 6	7 29 00	6 17 04	1 6 58	6 10 47	6 7 07	6 24 50	6 26 20
30	18 6	7 29 11	6 17 30	1 6 27	6 12 46	6 9 37	6 27 49	6 29 18
Nov. 1	20 6	7 29 22	6 17 57	1 5 53	6 14 46	6 12 08	7 0 46	7 2r14
3	21 6	7 29 34	6 18 23	1 5 16	6 16 47	6 14 38	7 3 41	7 5 08
5	23 6	7 29 46	6 18☌49	1 4 37	6 18 47	6 17 09	7 6 34	7 7 59
7	26 6	7 29 57	6 19 16	1 3 56	6 20 47	6 19 39	7 9 23	7 10 47
9	28 6	8 0 10	6 19 42	1 3 14	6 22 48	6 22 10	7 12 10	7 13 32
11	30 6	8 0 22	6 20 08	1 2 31	6 24 48	6 24☌41	7 14 53	7 16 14
13	3 7	8 0 34	6 20 35	1 1 47	6 26 49	6 27 11	7 17 32	7 18 50
15	5 7	8 0 47	6 21r01	1 1 02	6 28 50	6 29 42	7 20 06	7 21 20

Longitudes of Planets

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ ध	बृ ♃ तु	मं ♂ मे	र ☉ वृ	शु ♀ [illegible]	बु ☿ वृ	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	5 7	8 0 47	6 21r01	1R 1 02	6 28 50	6 29s42	7 20 06	7 21 20
17	7 7	8 1 00	6 21 27	1 0ȣ18	7 0 51	7 2 13	7 22 33	7 23 43
19	9 7	8 1 13	6 21 53	0 29 35	7 2 52	7 4 44	7 24 51	7 25 56
21	11 7	8 1 26	6 22 19	0 28 53	7 4 53	7 7 14	7 26 57	7 27 56
23	12 7	8 1 39	6 22 45	0 28 12	7 6 54	7 9 45	7 28 50	7 29 40
25	14 7	8 1 52	6 23 11	0 27 33	7 8 56	7 12 16	8 0 24	8 1 03
27	16 7	8 2 06	6 23 37	0 26 56	7 10 57	7 14 47	8 1 35	8 2 00
29	18 7	8 2 19	6 24 03	0 26 21	7 12 58	7 17 17	8 2 16	8R 2 25
Dec. 1	20 7	8 2 33	6 24 28	0 25 49	7 15 00	7 19 48	8 2 23	8 2 10
3	22 7	8 2 47	6 24 54	0 25 20	7 17 02	7 22 19	8 1 47	8 1 12
5	24 7	8 3s01	6 25 19	0 24 53	7 19 03	7 24 50	8 0s27	7 29 31
7	26 7	8 3 15	6 25 44	0 24 30	7 21 05	7 27 21	7 28 25	7 27 11
9	29 7	8 3 29	6 26 10	0 24 10	7 23 07	7 29 51	7 25 52	7 24☌30
11	1 8	8 3 43	6 26 34	0 23 53	7 25 09	8 2r22	7 23 07	7 21 46
13	3 8	8 3 57	6 26 59	0 23 39	7 27 11	8 4 53	7 20 31	7 19r23
15	5 8	8 4 11	6 27 23	0 23 29	7 29 13	8 7 24	7 18 23	7 17 34
17	7 8	8 4 25	6 27 48	0 23 22	8 1 15	8 9 55	7 16 56	7 16 29
19	9 8	8 4 39	6 28 12	0 23 18	8 3 17	8 12 25	7 16 13	7D16 08
21	11 8	8 4☌53	6 28 35	0D23 18	8 5 20	8 14 56	7 16 12	7 16 25
23	13 8	8 5 07	6 28 59	0 23 20	8 7 22	8 17 27	7 16 47	7 17 16
25	14 8	8 5 22	6 29 22	0 23 26	8 9 24	8 19 58	7 17 52	7 18 34
27	16 8	8 5 36	6 29 45	0 23 35	8 11 26	8 22 28	7 19 21	7 20 13
29	18 8	8 5 50	7 0 08	0 23 46	8 13 28	8 24 59	7 21 10	7 22 10
31	20 8	8 6 04	7 0 30	0 24 01	8 15 31	8 27 30	7 23 13	7 24 19
Jan. 2	23 8	8 6 18	7 0 52	0 24 18	8 17 33	9 0 00	7 25 28	7 26 39

Longitudes of Rahu, Uranus, Neptuné and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	6 15 30	6 14 7	3 R17 32	6 11 10	4R 8 50	23 16 30
February	1	6 12 3	6 12 28	3 16 15	6 11 30	4 8 16	23 16 35
March	1	6 9 16	6 10 59	3 15 7	6R 11 21	4 7 34	23 16 38
April	1	6 8 5	6 9 20	3 14 21	6 10 45	4 6 54	23 16 40
May	1	6 8 6	6 7 45	3 D14 22	6 9 57	4 6 32	23 16 43
June	1	6 7 36	6 6 7	3 15 12	6 9 12	4D 6 36	23 16 47
July	1	6 5 31	6 4 31	3 16 37	6 8 46	4 7 5	23 16 52
August	1	6 2 16	6 2 53	3 18 27	6D 8 49	4 7 57	23 16 57
September	1	5 29 45	6 1 13	3 20 20	6 9 21	4 8 57	23 17 0
October	1	5 28 58	5 29 38	3 21 53	6 10 14	4 9 54	23 17 3
November	1	5 29 2	5 28 0	3 22 52	6 11 22	4 10 37	23 17 5
December	1	5 28 9	5 26 24	3 R23 2	6 12 26	4 10 56	23 17 10
January	1	5 25 16	5 24 46	3 22 23	6 13 17	4R10 46	23 17 15

Combustion or Heliacal Setting of Planets

Saturn : From Dec. 6 to Jan. 3 ('59)
Jupiter : From Oct. 22 to Nov. 15
Mars : — —
Venus : From Jan. 25 to Jan. 29, Oct. 19 to Dec. 10.
Mercury : From Feb. 8 to Mar. 16, Apr. 10 to Apr. 26, June 4 to June 30
Aug 12 to Aug. 29, Sept. 21 to Nov. 2, Dec. 5 to Dec 14.

PLANET	RETROGRADE Date		h	m	RETROGRADE Long. s	°	′	DIRECT Date		h	m	DIRECT Long. s	°	′
Mercury	—		—			—		Jan.	5,	14	20	8	1	58
	Apr	6,	19	59	0	7	33	Apr.	30,	12	29	11	28	43
	Aug.	9,	24	12	4	14	24	Sept.	2,	13	8	4	1	24
	Nov.	30,	12	34	8	2	25	Dec.	20,	7	14	7	16	8
Venus	Jan	8,	8	15	9	23	1	Feb.	18,	11	52	9	7	25
Mars	Oct.	10,	15	13	1	9	15	Dec.	20,	12	15	0	23	18
Jupiter	Feb.	15,	20	30	6	8	23	June	19,	7	30	5	28	29
Saturn	Apr.	4,	25	26	8	2	26	Aug.	24,	7	13	7	25	49
Uranus	—		—			—		Apr.	15,	13	34	3	14	15
	Nov.	22,	10	32	3	23	5	—		—			—	
Neptune	Feb.	5,	9	23	6	11	30	July	14,	12	24	6	8	44
Pluto	—		—			—		May	11,	26	16	4	6	30
	Dec.	6,	21	44	4	10	56	—		—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
						Jan.	5	25	39	Māgha	Vadi
Jan.	19	27	38	Māgha	Sukla	Feb.	4	13	35	Phālguna	,,
Feb.	18	21	8	Phālguna	,,	Mar.	5	23	58	Caitra	,,
Mar.	20	15	20	Caitra	,,	Apr.	4	9	15	Vaiśākha	,,
Apr.	19	8	53	Vaiśākha	,,	May.	3	17	53	Jyaiṣṭha	,,
May	18	24	30	Jyaiṣṭha	,,	June.	1	26	25	Āṣāḍha	,,
June	17	13	29	Āṣāḍha	,,	July.	1	11	34	Śravaṇa	,,
July	16	24	3	Śrāvaṇa (*Mala*)	,,	July.	30	22	17	Śrāvaṇa (*Adhika*)	,,
Aug.	15	9	3	Śrāvaṇa	,,	Aug.	29	11	23	Bhādra	,,
Sept.	13	17	32	Bhādra	,,	Sept.	27	27	13	Āśvina	,,
Oct.	12	26	22	Āśvina	,,	Oct.	27	21	11	Kārtika	,,
Nov.	11	12	4	Kārtika	,,	Nov.	26	15	46	Agrahā	,,
Dec.	10	22	53	Agrahā	,,	Dec.	26	9	24	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	28	32	Karkaṭa	on	July	16	13	28
Kumbha	on	Feb.	12	17	33	Simha	on	Aug.	16	21	50
Mīna	on	Mar.	14	14	29	Kanyā	on	Sept.	16	21	43
Meṣa	on	Apr.	13	23	2	Tulā	on	Oct.	17	9	35
Vṛṣa	on	May	14	19	56	Vṛścika	on	Nov.	16	9	19
Mithuna	on	June	14	28	34	Dhanus	on	Dec.	15	33	54

Saka era 1880-81, Samvat 2015-16 (Apr. 9, Nov. 1), B.S. 1365-66 (Apr. 15), Kollam era 1134-35 (Aug. 17), 33 Vikarin (Apr. 9, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च) ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec. 28	12	9	3	4	14	3	17	23	4	0	44	4	14	14	4	27	54	5	11	43	5	25	42
Jan. 4	19	9	6	9	51	6	24	9	7	8	34	7	23	1	8	7	25	8	21	39	9	5	39
11	26	9	9	19	18	10	2	34	10	15	26	10	27	57	11	10	10	11	22	9	0	3	59
18	4	10	0	15	47	0	27	37	1	9	36	1	21	46	2	4	12	2	16	56	2	29	58
25	11	10	3	13	17	3	26	51	4	10	37	4	24	31	5	8	31	5	22	35	6	6	40
Feb. 1	18	10	6	20	45	7	4	51	7	18	55	8	2	57	8	16	52	9	0	39	9	14	13
8	25	10	9	27	33	10	10	34	10	23	18	11	5	44	11	17	55	11	29	54	0	11	46
15	3	11	0	23	33	1	5	24	1	17	22	1	29	33	2	12	2	2	24	51	3	8	2
22	10	11	3	21	35	4	5	29	4	19	39	5	4	1	5	18	29	6	2	57	6	17	22
Mar. 1	17	11	7	1	39	7	15	48	7	29	45	8	13	31	8	27	5	9	10	26	9	23	34
8	24	11	10	6	29	10	19	10	11	1	38	11	13	53	11	25	58	0	7	54	0	19	44
15	1	12	1	1	32	1	13	23	1	25	20	2	7	30	2	19	56	3	2	43	3	15	53
22	8	12	3	29	26	4	13	30	4	27	54	5	12	35	5	27	27	6	12	22	6	27	13
29	15	12	7	11	52	7	26	14	8	10	18	8	24	2	9	7	26	9	20	32	10	3	21
Apr. 5	22	12	10	15	55	10	28	17	11	10	29	11	22	32	0	4	28	0	16	20	0	28	8
12	29	12	1	9	57	1	21	49	2	3	48	2	15	57	2	28	20	3	11	2	3	24	6
19	5	1	4	7	35	4	21	32	5	5	55	5	20	41	6	5	44	6	20	55	7	6	6
26	12	1	7	21	6	8	5	47	8	20	4	9	3	55	9	17	20	10	0	21	10	13	1
May 3	19	1	10	25	24	11	7	34	11	19	34	0	1	27	0	13	17	0	25	6	1	6	55
10	26	1	1	18	47	2	0	44	2	12	47	2	25	0	3	7	24	3	20	4	4	3	4
17	2	2	4	16	25	5	0	11	5	14	24	5	29	1	6	13	59	6	29	10	7	14	26
24	9	2	7	29	36	8	14	29	8	28	58	9	12	59	9	26	30	10	9	33	10	22	12
31	16	2	11	4	32	11	16	36	11	28	31	0	10	20	0	20	8	1	3	57	1	15	50
June 7	23	2	1	27	48	2	9	53	3	22	6	3	4	28	3	17	1	3	29	47	4	12	48
14	30	2	4	26	7	5	9	45	5	23	46	6	8	8	6	22	51	7	7	49	7	22	54
21	6	3	8	7	57	8	22	48	9	7	15	9	21	22	10	4	58	10	18	5	11	0	46
28	13	3	11	13	7	11	25	12	0	7	7	0	18	56	1	0	45	1	12	36	1	24	34
July 5	20	3	2	6	41	2	18	57	3	1	24	3	14	2	3	26	50	4	9	50	4	23	2
12	27	3	5	6	33	5	20	7	6	4	2	6	18	13	7	2	39	7	17	16	8	1	59
19	2	4	8	16	42	9	1	16	9	15	34	9	29	30	10	13	2	10	26	9	11	8	52
26	9	4	11	21	14	0	3	21	0	15	17	0	27	8	1	8	59	1	20	54	2	2	57
Aug. 2	16	4	2	15	12	2	27	40	3	10	21	3	23	17	4	6	26	4	19	47	5	3	20
9	23	4	5	17	2	6	0	54	6	14	54	6	29	1	7	13	16	7	27	34	8	11	53
16	30	4	8	26	9	9	10	17	9	24	12	10	7	50	10	21	9	11	4	7	11	16	46
23	6	5	11	29	7	0	11	15	0	23	12	1	5	4	1	16	56	1	28	53	2	10	59
30	13	5	2	23	18	3	5	53	3	18	46	4	1	57	4	15	27	4	29	12	5	13	10
Sept. 6	20	5	5	27	18	6	11	32	6	25	48	7	10	4	7	24	17	8	8	25	8	22	26
13	27	5	9	6	18	9	19	58	10	3	26	10	16	40	10	29	38	11	12	22	11	24	57
20	3	6	0	7	7	0	19	11	1	1	8	1	13	0	1	24	52	2	6	48	2	18	53
27	10	6	3	1	11	3	13	47	3	26	43	4	10	2	4	23	44	5	7	49	5	22	11
Oct. 4	17	6	6	6	46	6	21	28	7	6	9	7	20	44	8	5	8	8	19	17	9	3	10
11	24	6	9	16	46	10	0	5	10	13	9	10	26	0	11	8	37	11	21	4	0	3	20
18	31	6	0	15	27	0	27	26	1	9	21	1	21	12	2	3	3	2	14	58	2	27	0
25	7	7	3	9	15	3	21	46	4	4	38	4	17	54	5	1	37	5	15	48	6	0	23
Nov. 1	14	7	6	15	17	7	0	23	7	15	30	8	0	29	8	15	12	8	29	33	9	13	29
8	21	7	9	27	1	10	10	11	10	23	1	11	5	35	11	17	56	0	0	7	0	12	11
15	28	7	0	24	10	1	6	4	1	17	57	1	29	48	2	11	41	2	23	37	3	5	40
22	5	8	3	17	52	4	0	18	4	13	3	4	26	11	5	9	45	5	23	48	6	8	19
29	12	8	6	23	16	7	8	30	7	23	51	8	9	7	8	24	8	9	8	46	9	22	54
Dec. 6	19	8	10	6	33	10	19	44	11	2	31	11	14	59	11	27	12	0	9	14	0	21	10
13	26	8	1	3	3	1	14	54	1	26	47	2	8	41	2	20	39	3	2	41	3	14	50
20	4	9	3	27	7	4	9	35	4	22	18	5	5	20	5	18	45	6	2	35	6	16	51
27	11	9	7	1	33	7	16	36	8	1	51	8	17	7	9	2	12	9	16	59	10	1	17
Jan. 3	18	9	10	15	6	10	28	25	11	11	18	11	23	48	0	6	1	0	18	1	0	29	55

Ayanamsa on 1st Jan. : 23° 17′ 15″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T						
			श ♄ च	बृ ♃ गु	म ♂ प	र ☉ व	शु ♀ च	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	22	8	8 6s11	7 0s41	0 24 09	8 16 32	8 28 45	7 24 19	7 25 28
3	24	8	8 6r25	7 1 03	0 24 27	8 18 34	9 1 16	7 26 39	7 27 53
5	26	8	8 6 39	7 1 25	0 24 48	8 20 37	9 3 46	7 29 08	8 0 24
7	28	8	8 6 53	7 1 46	0 25 11	8 22 39	9 6 17	8 1 43	8 3 02
9	30	8	8 7 06	7 2 07	0 25 37	8 24 41	9 8 47	8 4 23	8 5 45
11	2	9	8 7 20	7 2 27	0 26 04	8 26 44	9 11 18	8 7 08	8 8 31
13	4	9	8 7 34	7 2 47	0 26 34	8 28 46	9 13 48	8 9 56	8 11 22
15	6	9	8 7 47	7 3 07	0 27 06	9 0 48	9 16 19	8 12 48	8 14 15
17	8	9	8 8 01	7 3 26	0 27 40	9 2 50	9 18 49	8 15 42	8 17 11
19	10	9	8 8 14	7 3 45	0 28 16	9 4 52	9 21 19	8 18 40	8 20 09
21	12	9	8 8 27	7 4 03	0 28 54	9 6 55	9 23 49	8 21s40	8 23 10
23	14	9	8 8 40	7 4 21	0 29 33	9 8 57	9 26 20	8 24 42	8 26 14
25	16	9	8 8 53	7 4 38	1 0 14	9 10 59	9 28 50	8 27 47	8 29 20
27	18	9	8 9 05	7 4 55	1 0 56	9 13 01	10 1 20	9 0 54	9 2 28
29	20	9	8 9 18	7 5 12	1 1 39	9 15 02	10 3 50	9 4 04	9 5 40
31	22	9	8 9 30	7 5 28	1 2 24	9 17 04	10 6 19	9 7 16	9 8 53
Feb. 2	24	9	8 9 42	7 5 43	1 3 11	9 19 06	10 8 49	9 10 31	9 12 10
4	26	9	8 9 54	7 5 58	1 3 58	9 21 08	10 11 19	9 13 49	9 15 30
6	29	9	8 10 06	7 6 12	1 4 47	9 23 10	10 13 48	9 17 10	9 18 52
8	1	10	8 10 17	7 6 26	1 5 37	9 25 11	10 16 18	9 20 34	9 22 18
10	3	10	8 10 29	7 6 39	1 6 28	9 27 13	10 18 47	9 24 02	9 25 47
12	5	10	8 10 40	7 6 52	1 7 20	9 29 14	10 21 16	9 27 32	9 29 19
14	6	10	8 10 50	7 7 04	1 8 12	10 1 16	10 23 46	10 1☉06	10 2 54
16	8	10	8 11 01	7 7 15	1 9 06	10 3 17	10 26 15	10 4 43	10 6 32
18	10	10	8 11 11	7 7 25	1 10 01	10 5 18	10 28 43	10 8 23	10 10 14
20	12	10	8 11 21	7 7 35	1 10 56	10 7 19	11 1 12	10 12 05	10 13 57
22	14	10	8 11 31	7 7 45	1 11 53	10 9 20	11 3 41	10 15 50	10 17 42
24	16	10	8 11 40	7 7 53	1 12 50	10 11 20	11 6 09	10 19 35	10 21 28
26	18	10	8 11 49	7 8 01	1 13 47	10 13 21	11 8 37	10 23 20	10 25 12
28	21	10	8 11 58	7 8 09	1 14 46	10 15 22	11 11 05	10 27r04	10 28 54
Mar. 2	23	10	8 12 07	7 8 15	1 15 45	10 17 22	11 13 33	11 0 42	11 2 28
4	25	10	8 12 15	7 8 21	1 16 44	10 19 22	11 16 01	11 4 13	11 5 54
6	27	10	8 12 23	7 8 26	1 17 45	10 21 23	11 18 28	11 7 32	11 9 05
8	29	10	8 12 31	7 8 31	1 18 45	10 23 23	11 20 56	11 10 35	11 11 59
10	1	11	8 12 38	7 8 35	1 19 47	10 25 23	11 23 23	11 13 17	11 14 30
12	3	11	8 12 45	7 8 38	1 20 48	10 27 23	11 25 50	11 15 36	11 16 35
14	5	11	8 12 51	7 8 40	1 21 51	10 29 22	11 28 17	11 17 26	11 18 10
16	7	11	8 12 58	7 8 41	1 22 53	11 1 22	0 0 43	11 18 45	11 19 12
18	8	11	8 13 04	7R 8 42	1 23 57	11 3 22	0 3 10	11 19 31	11R19 42
20	10	11	8 13 09	7 8 42	1 25 00	11 5 21	0 5 36	11 19 44	11 19 38
22	12	11	8 13 14	7 8 41	1 26 04	11 7 20	0 8 02	11 19 25	11 19s04
24	15	11	8 13 19	7 8 40	1 27 09	11 9 19	0 10 27	11 18 36	11 18 02
26	17	11	8 13 23	7 8 37	1 28 13	11 11 18	0 12 53	11 17 23	11 16 39
28	19	11	8 13 27	7 8 34	1 29 18	11 13 17	0 15 18	11 15 52	11 15☉03
30	21	11	8 13 31	7 8 31	2 0 24	11 15 15	0 17 43	11 14 12	11 13 21
Apr. 1	24	11	8 13 34	7 8 26	2 1 29	11 17 14	0 20 17	11 12 31	11 11 43
3	26	11	8 13 37	7 8 21	2 2 36	11 19 12	0 22 32	11 10 56	11 10 14
5	28	11	8 13 40	7 8 15	2 3 42	11 21 10	0 24 56	11 9 35	11 9r00
7	29	11	8 13 42	7 8 08	2 4 48	11 23 09	0 27 19	11 8 30	11 8 06
9	1	12	8 13 44	7 8 01	2 5 55	11 25 07	0 29 43	11 7 47	11 7 33
11	3	12	8 13 45	7 7 53	2 7 03	11 27 04	1 2 06	11 7 24	11D7 21
13	5	12	8 13 46	7 7 44	2 8 10	11 29 02	1 4 29	11 7 23	11 7 31
15	7	12	8R13 46	7 7 35	2 9 18	0 1 00	1 6 51	11 7 43	11 8 00
17	9	12	8 13 46	7 7 25	2 10 25	0 2 57	1 9 13	11 8 22	11 8 49

Ayanamsa on 1st Jan : 23° 17' 15"

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄	गु ♃	मं ♂	र ☉	शु ♀	बु ☿	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Apr.17	9	12	8R13 46	7R 7 25	2 10 25	0 2 57	1 9 13	11 8 22	11 8 49
19	11	12	8 13 46	7 7 15	2 11 34	0 4 54	1 11 35	11 9 20	11 9 55
21	13	12	8 13 46	7 7 04	2 12 42	0 6 52	1 13 56	11 10 33	11 11 16
23	15	12	8 13 45	7 6 52	2 13 50	0 8 49	1 16 17	11 12 02	11 12 52
25	17	12	8 13 43	7 6 40	2 14 59	0 10 46	1 18 38	11 13 44	11 14 41
27	20	12	8 13 41	7 6 28	2 16 08	0 12 42	1 20 58	11 15 39	11 16 41
29	22	12	8 13 39	7 6 15	2 17 17	0 14 39	1 23 17	11 17 46	11 18 53
May. 1	24	12	8 13 36	7 6 01	2 18 26	0 16 35	1 25 37	11 20 03	11 21 15
3	26	12	8 13 34	7 5 47	2 19 36	0 18 32	1 27 56	11 22 30	11 23 47
5	28	12	8 13 30	7 5 33	2 20 45	0 20 28	2 0 14	11 25 07	11 26 28
7	30	12	8 13 27	7 5 19	2 21 55	0 22 25	2 2 32	11 27 52	11 29 18
9	2	1	8 13 23	7 5 04	2 23 05	0 24 21	2 4 49	0 0 46	0 2 16
11	3	1	8 13 18	7 4 49	2 24 15	0 26 17	2 7 06	0 3 49	0 5 23
13	5	1	8 13 13	7 4 34	2 25 25	0 28 13	2 9 22	0 7 00	0 8 38
15	7	1	8 13 08	7 4 19	2 26 36	1 0 08	2 11 38	0 10 19	0 12 01
17	9	1	8 13 03	7 4 04	2 27 46	1 2 04	2 13 53	0 13s46	0 15 32
19	11	1	8 12 57	7 3s49	2 28 57	1 4 00	2 16 07	0 17 21	0 19 12
21	14	1	8 12 51	7 3 33	3 0 07	1 5 55	2 18 21	0 21 05	0 23 00
23	16	1	8 12 45	7 3 18	3 1 18	1 7 50	2 20 34	0 24 57	0 26 56
25	18	1	8 12 39	7 3 03	3 2 29	1 9 46	2 22 46	0 28 51	1 0 59
27	21	1	8 12 32	7 2 48	3 3 40	1 11 41	2 24 53	1 3 03	1 5 09
29	23	1	8 12 25	7 2 33	3 4 52	1 13 36	2 27 09	1 7 17	1 9 25
31	25	1	8 12 18	7 2 19	3 6 03	1 15 31	2 29 19	1 11 35	1 13 46
June.2	26	1	8 12 10	7 2 04	3 7 15	1 17 26	3 1 28	1 15 56	1 18ó10
4	28	1	8 12 03	7 1 50	3 8 26	1 19 21	3 3 36	1 20 22	1 22 34
6	30	1	8 11 55	7 1 36	3 9 38	1 21 16	3 5 43	1 24 45	1 26 56
8	2	2	8 11 47	7 1 23	3 10 50	1 23 11	3 7 49	1 29 06	2 1 15
10	4	2	8 11 38	7 1 10	3 12 02	1 25 06	3 9 54	2 3 23	2 5 29
12	6	2	8 11 30	7 0 57	3 13 14	1 27 00	3 11 57	2 7 33	2 9r35
14	8	2	8 11 22	7 0 45	3 14 26	1 28 55	3 14 00	2 11 36	2 13 34
16	10	2	8 11 13	7 0 33	3 15 39	2 0 50	3 16 01	2 15 30	2 17 24
18	12	2	8 11 04	7 0 22	3 16 51	2 2 44	3 18 01	2 19 16	2 21 05
20	15	2	8 10 56	7 0 11	3 18 04	2 4 39	3 19 59	2 22 52	2 24 37
22	17	2	8 10 47	7 0 01	3 19 16	2 6 33	3 21 56	2 26 19	2 27 59
24	19	2	8 10 38	6 29 52	3 20 29	2 8 28	3 23 51	2 29 37	3 1 12
26	21	2	8 10s29	6 29 43	3 21 42	2 10 22	3 25 44	3 2 45	3 4 15
28	23	2	8 10 20	6 29 35	3 23 55	2 12 17	3 27 35	3 5 43	3 7 09
30	25	2	8 10 12	6 29 27	3 24 08	2 14 11	3 29 24	3 8 32	3 9 52
July. 2	27	2	8 10 03	6 29 20	3 25 21	2 16 05	4 1 11	3 11 10	3 12 26
4	29	2	8 9 54	6 29 14	3 26 35	2 18 00	4 2 56	3 13 39	3 14 49
6	30	2	8 9 45	6 29 09	3 27 48	2 19 54	4 4 38	3 15 56	3 17 00
8	2	3	8 9 37	6 29 04	3 29 02	2 21 49	4 6 18	3 18 01	3 19 00
10	4	3	8 9 28	6 29 00	4 0 15	2 23 43	4 7 54	3 19 55	3 20 47
12	6	3	8 9 20	6 28 56	4 1 29	2 25 38	4 9 28	3 21 35	3 22 20
14	9	3	8 9 12	6 28 53	4 2 43	2 27 32	4 10 58	3 23 02	3 23 39
16	11	3	8 9 04	6 28 52	4 3 57	2 29 26	4 12 24	3 24 13	3 24 42
18	13	3	8 8 56	6 28 50	4 5 11	3 1 21	4 13 46	3 25 07	3 25 28
20	15	3	8 8 48	6D28 50	4 6 25	3 3 15	4 15 04	3 25 44	3 25 56
22	18	3	8 8 40	6 28 50	4 7 40	3 5 10	4 16 18	3R26 03	3 26 05
24	20	3	8 8 33	6 28 51	4 8 54	3 7 04	4 17 26	3 26 01	3 25s53
26	22	3	8 8 26	6 28 53	4 10 09	3 8 59	4 18 29	3 25 40	3 25 22
28	23	3	8 8 19	6 28 55	4 11 23	3 10 54	4 19 27	3 25 00	3 24 32
30	25	3	8 8 13	6 28 58	4 12 38	3 12 48	4 20 18	3 24 01	3 23 25
Aug. 1	27	3	8 8 07	6 29 02	4 13 53	3 14 43	4 21 02	3 22 46	3 22 05

Ayanamsa on 1st Jan. : 23° 17' 15"

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I,S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Aug. 1	27	3	8R 8 07	6 29 02	4 13 53	3 14 43	4 21 02	3 R22 46	3s22 05
3	29	3	8 8 00	6 29 07	4 15 08	3 16 38	4 21 40	3 21 21	3 20 35
5	1	4	8 7 55	6 29 12	4 16 23	3 18 33	4 22 10	3 19⊙46	3 19 03
7	3	4	8 7 49	6 29 18	4 17 39	3 20 28	4 22 32	3 18 17	3 17 34
9	5	4	8 7 44	6 29 24	4 18 54	3 22 23	4R22 45	3 16 53	3 16 16
11	7	4	8 7 39	6 29 32	4 20 10	3 24 18	4 22 50	3 15 43	3 15r15
13	9	4	8 7 35	6 29 40	4 21 25	3 26 13	4 22 45	3 14 52	3 14 36
15	12	4	8 7 31	6 29 48	4 22 41	3 28 08	4 22 30	3D14 26	3 14 23
17	14	4	8 7 27	6 29 58	4 23 57	4 0 04	4 22 [illegible]	3 14 27	3 14 39
19	16	4	8 7 24	7 0 08	4 25 13	4 1 59	4 21 33	3 14 58	3 15 24
21	18	4	8 7 21	7 0 18	4 26 29	4 3 54	4 20s50	3 15 58	3 16 39
23	20	4	8 7 18	7 0 29	4 27 46	4 5 50	4 19 59	3 17 28	3 18 24
25	22	4	8 7 16	7 0 41	4 29 02	4 7 46	4 19 01	3 19 26	3 20 35
27	24	4	8 7 14	7 0 53	5 0s19	4 9 41	4 17 56	3 21 50	3 23 10
29	25	4	8 7 12	7 1 06	5 1 36	4 11 37	4 16 46	3 24 37	3 26 08
31	27	4	8 7 11	7 1 20	5 2 53	4 13 33	4 15 34	3 27 43	3 29 23
Sept 2	29	4	8 7 10	7 1 34	5 4 10	4 15 29	4 14⊙20	4 1 06	4 2 52
4	1	5	8 7 10	7 1 49	5 5 27	4 17 26	4 13 06	4 4 40	4 6s31
6	4	5	8D7 10	7 2 04	5 6 44	4 19 22	4 11r55	4 8 23	4 10 16
8	6	5	8 7 10	7 2 19	5 8 02	4 21 18	4 10 48	4 12 11	4 14 06
10	8	5	8 7 11	7 2 36	5 9 19	4 23 15	4 9 46	4 16 01	4 17 56
12	10	5	8 7 12	7 2 52	5 10 37	4 25 12	4 8 52	4 19 51	4 21 45
14	12	5	8 7 14	7 3 09	5 11 55	4 27 08	4 8 06	4 23 39	4 25 33
16	14	5	8 7 16	7 3 27	5 13 13	4 29 05	4 7 29	4 27 26	4 29⊙18
18	16	5	8 7 18	7 3 45	5 14 31	5 1 02	4 7 01	5 1 09	5 2 59
20	18	5	8 7 21	7 4 04	5 15 50	5 2 59	4 6 43	5 4 48	5 6 36
22	20	5	8 7 24	7 4 23	5 17 08	5 4 57	4D6 35	5 8 23	5 10 10
24	22	5	8 7 27	7 4 42	5 18 27	5 6 54	4 6 36	5 11 55	5 13 39
26	24	5	8 7 31	7 5 02	5 19 46	5 8 52	4 6 47	5 15 23	5 17 05
28	26	5	8 7 35	7 5 22	5 21 05	5 10 49	4 7 06	5 18 47	5 20 27
30	28	5	8 7 40	7 5 43	5 22 24	5 12 47	4 7 34	5 22 07	5 23s46
Oct. 2	30	5	8 7 45	7 6 03	5 23 44	5 14 45	4 8 11	5 25 24	5 27 01
4	2	6	8 7 50	7 6 25	5 25 03	5 16 43	4 8 54	5 28 37	6 0 13
6	4	6	8 7 56	7 6 47	5 26 23	5 18 42	4 9 45	6 1 48	6 3 21
8	7	6	8 8 02	7 7 09	5 27 43	5 20 40	4 10 42	6 4 54	6 6 27
10	9	6	8 8 09	7 7 31	5 29 03	5 22 39	4 11 45	6 7 58	6 9 29
12	11	6	8 8 15	7 7 54	6 0 23	5 24 37	4 12 54	6 10 59	6 12 28
14	13	6	8 8 22	7 8 16	6 1 44	5 26 36	4 14 08	6 13r57	6 15 25
16	15	6	8 8 30	7 8 40	6 3 04	5 28 35	4 15 28	6 16 52	6 18 18
18	17	6	8 8 38	7 9 03	6 4 24	6 0 34	4 16 51	6 19 43	6 21 08
20	19	6	8 8 46	7 9 27	6 5 45	6 2 33	4 18 19	6 22 32	6 23 34
22	20	6	8 8 54	7 9 51	6 7 06	6 4 32	4 19 51	6 25 16	6 26 37
24	22	6	8 9 03	7 10 15	6 8 28	6 6 32	4 21 27	6 27 57	6 29 16
26	24	6	8 9 12	7 10 40	6 9 49	6 8 31	4 23 06	7 0 33	7 1 49
28	26	6	8 9 21	7 11 05	6 11 11	6 10 31	4 24 49	7 3 04	7 4 17
30	28	6	8 9 31	7 11 30	6 12⊙32	6 12 31	4 26 34	7 5 29	7 6 39
Nov. 1	1	7	8 9 40	7 11 55	6 13s54	6 14 31	4 28 22	7 7 46	7 8 51
3	3	7	8 9 50	7 12 20	6 15 17	6 16 31	5 0 12	7 9 54	7 10 54
5	5	7	8 10 01	7 12 46	6 16 39	6 18 31	5 2 05	7 11 50	7 12 43
7	7	7	8 10 11	7 13 12	6 18 01	6 20 32	5 4 00	7 13 32	7 14 17
9	9	7	8 10 22	7 13 38	6 19 24	6 22 32	5 5 27	7 14 56	7 15 30
11	11	7	8 10 33	7 14 04	6 20 47	6 24 33	5 7 56	7 15 57	7 16 18
13	13	7	8 10 45	7 14 30	6 22 10	6 26 33	5 9 57	7 16 31	7R16 36
15	15	7	8 10 56	7 14 56	6 23 33	6 28 34	5 12 00	7 17 36	7 16 31

Longitudes of Planets

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	15	7	8 10 56	7 14 56	6 23s33	6 28 34	5 12 00	7R16 36	7 15 31
17	17	7	8 11 03	7 15 23	6 24 56	7 0 35	5 14 04	7 16 17	7 15s53
19	19	7	8 11 20	7 15 49	6 26 20	7 2 36	5 16 09	7 14 33	7 13 39
21	21	7	8 11 32	7 16 16	6 27 44	7 4 37	5 18 17	7 12 35	7 11 23
23	22	7	8 11 44	7 16s43	6 29 07	7 6 38	5 20 25	7 10 05	7 8☌44
25	24	7	8 11 57	7 17 10	7 0 32	7 8 40	5 22 35	7 7 22	7 6 02
27	27	7	8 12 10	7 17 36	7 1 56	7 10 41	5 24 46	7 4 47	7 3r38
29	29	7	8 12 22	7 18 03	7 3 20	7 12 43	5 26 57	7 2 38	7 1 49
Dec. 1	1	8	8 12 35	7 18 30	7 4 45	7 14 44	5 29 10	7 1 10	7 0 43
3	4	8	8 12 49	7 18 57	7 6 10	7 16 46	6 1 24	7D0 28	7 0 24
5	6	8	8 13 02	7 19☌24	7 7 35	7 18 48	6 3 30	7 0 30	7 0 46
7	8	8	8 13 15	7 19 52	7 9 00	7 20 50	6 5 55	7 1 11	7 1 44
9	10	8	8 13 29	7 20 19	7 10 26	7 22 52	6 8 11	7 2 24	7 3 10
11	12	8	8 13 42	7 20 46	7 11 51	7 24 53	6 10 28	7 4 02	7 4 59
13	14	8	8 13 56	7 21 13	7 13 17	7 26 55	6 12 46	7 6 00	7 7 05
15	15	8	8 14 10	7 21 40	7 14 43	7 28 57	6 15 05	7 8 13	7 9 24
17	17	8	8 14s24	7 22r07	7 16r09	8 1 00	6 17 24	7 10 38	7 11 53
19	19	8	8 14 38	7 22 34	7 17 35	8 3 02	6 19 44	7 13 11	7 14 30
21	21	8	8 14 52	7 23 00	7 19 02	8 5 04	6 22 04	7 15 51	7 17 13
23	23	8	8 15 06	7 23 27	7 20 28	8 7 06	6 24 25	7 18 36	7 20 01
25	25	8	8 15 20	7 23 54	7 21 56	8 9 08	6 26 46	7 21 26	7 22 51
27	27	8	8 15 34	7 24 20	7 23 22	8 11 11	6 29 08	7 24 18	7 25 45
29	30	8	8 15 48	7 24 47	7 24 49	8 13 13	7 1 30	7 27 13	7 28 41
31	2	9	8 16☌02	7 25 13	7 26 17	8 15 15	7 3 53	8 0 10	8 1 40
Jan. 2	4	9	8 16 17	7 25 40	7 27 44	8 17 18	7 6 16	8 3 09	8 4s40

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	5 25 16	5 24 46	3R22 23	6 13 17	4R 10 46	23 17 15
February	1	5 21 45	5 23 8	3 21 9	6 13 39	4 10 14	23 17 19
March	1	5 19 58	5 21 38	3 19 57	6R13 32	4 9 31	23 17 22
April	1	5 19 42	5 20 0	3 19 6	6 12 58	4 8 49	23 17 25
May	1	5 19 36	5 18 24	3D18 59	6 12 11	4 8 25	23 17 28
June	1	5 18 6	5 16 46	3 19 41	6 11 25	4D 8 27	23 17 32
July	1	5 15 10	5 15 11	3 21 2	6 10 58	4 8 55	23 17 36
August	1	5 12 10	5 13 32	3 22 50	6D10 58	4 9 46	23 17 41
September	1	5 10 43	5 11 53	3 24 44	6 11 26	4 10 47	23 17 45
October	1	5 10 39	5 10 18	3 26 21	6 12 19	4 11 44	23 17 47
November	1	5 10 21	5 8 39	3 27 27	6 13 27	4 12 29	23 17 50
December	1	5 8 20	5 7 4	3R27 46	6 14 31	4 12 50	23 17 54
January	1	5 4 48	5 5 26	3 27 14	6 15 24	4R12 43	23 17 54

Combustion or Heliacal Setting of Planets

Saturn	Up to Jan. 3 then from Dec. 17 to Jan. 15 ('60)
Jupiter	From Nov. 23 to Dec. 17
Mars	From Aug. 28 to Dec. 16
Venus	From Aug. 21 to Sept. 5
Mercury	From Jan. 21 to Feb. 28, Mar. 23 to Apr. 6, May 17 to June 13, July 25 to Aug. 12, Sept. 5 to Oct. 14, Nov. 18 to Nov. 28.

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Mar.	19,	24	10	11	19	44	Apr.	12,	7	29	11	7	21
	July	22,	26	30	3	26	4	Aug.	15,	27	28	3	14	24
	Nov.	14,	5	50	7	16	36	Dec.	3,	27	11	7	0	25
Venus	Aug.	10,	28	43	4	22	50	Sept.	22,	22	49	4	6	34
Mars	—		—			—		—		—			—	
Jupiter	Mar.	18,	27	27	7	8	42	July	20,	13	43	6	28	50
Saturn	Apr.	16,	21	6	8	13	46	Sept.	5,	5	54	8	7	10
Uranus	—		—			—		Apr.	20,	11	54	3	18	56
	Nov.	27,	10	44	3	27	47	—		—			—	
Neptune	Feb.	7,	19	22	6	13	40.	July	16,	23	32	6	10	54
Pluto	—		—			—		May	13,	27	41	4	8	23
	Dec.	8,	27	22	4	12	52	—		—			—	

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	9	11	4	Pauṣa	Sukla	Jan.	24	25	2	Māgha	Vadi
Feb.	7	24	52	Māgha	,,	Feb.	23	14	24	Phālguna	,,
Mar.	9	16	21	Phālguna	,,	Mar.	24	25	32	Caitra	,,
Apr.	8	8	59	Caitra	,,	Apr.	23	10	43	Vaiśākha	,,
May	7	25	41	Vaiśākha	,,	May	22	18	26	Jyaiṣṭha	,,
June	9	17	23	Jyaiṣṭha	,,	June	20	25	30	Āṣāḍha	,,
July	6	7	30	Āṣāḍha	,,	July	20	9	3	Śrāvaṇa	,,
Aug.	4	20	4	Śrāvaṇa	,,	Aug.	18	18	20.	Bhādra	,,
Sept.	3	7	25	Bhādra	,,	Sept.	17	6	21	Āśvina	,,
Oct.	2	18	1	Āśvina	,,	Oct.	16	21	28	Kārtika	,,
Oct.	31	28	11	Kārtika	,,	Nov.	15	15	12	Agrahā	,,
Nov.	30	14	16	Agrahā	,,	Dec.	15	10	19	Pauṣa	,,
Dec.	29	24	39	Pauṣa	,,		—				

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	10	37	Karkaṭa	on	July	16	19	35
Kumbha	on	Feb.	12	23	39	Siṁha	on	Aug.	16	28	1
Mīna	on	Mar.	14	20	33	Kanyā	on	Sept.	16	27	57
Meṣa	on	Apr.	13	29	6	Tulā	on	Oct.	17	15	52
Vṛṣa	on	May	14	26	0	Vṛścika	on	Nov.	16	15	33
Mithuna	on	June	15	8	39	Dhanus	on	Dec.	16	6	6

1960 A.D. Longitude of Moon CONDENSED

Saka era 1881-82, Samvat 2016-17 (Mar. 28, Oct. 21), B.S. 1366-67 (Apr. 14),
Kollam era 1135-36 (Aug. 16), 34 Sarvari (Mar. 28, Apr. 13)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ढ) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec. 27	11	9	7	1	33	7	16	36	8	1	51	8	17	7	9	2	12	9	16	58	10	1	17
Jan. 3	18	9	10	15	6	10	28	25	11	11	18	11	23	48	0	6	1	0	18	1	0	29	55
10	25	9	1	11	45	1	23	37	2	5	31	2	17	30	2	29	36	3	11	49	3	24	10
17	5	10	4	6	40	4	19	21	5	2	14	5	15	21	5	28	45	6	12	28	6	26	31
24	10	10	7	10	54	7	25	34	8	10	26	8	25	22	9	10	12	9	24	49	10	9	5
31	17	10	10	22	56	11	6	21	11	19	19	0	1	55	0	14	13	0	26	17	1	8	12
Feb. 7	24	10	1	20	3	2	1	56	2	13	52	2	25	56	3	8	10	3	20	35	4	3	12
14	1	11	4	16	2	4	29	3	5	12	17	5	25	42	6	9	20	6	23	9	7	7	10
21	8	11	7	21	22	8	5	42	8	20	8	9	4	34	9	18	57	10	3	9	10	17	7
28	15	11	11	0	46	11	14	5	11	27	2	0	9	40	0	22	1	1	4	8	1	16	6
Mar. 6	22	11	1	27	59	2	9	52	2	21	50	3	3	56	3	16	15	3	28	49	4	11	40
13	29	11	4	24	48	5	8	13	5	21	53	6	5	46	6	19	48	7	3	58	7	18	11
20	6	12	8	2	25	8	16	37	9	0	45	9	14	46	9	28	39	10	12	22	10	25	53
27	13	12	11	9	11	11	22	13	0	5	0	0	17	32	0	29	51	1	11	58	1	23	56
Apr. 3	20	12	2	5	50	2	17	43	2	29	40	3	11	45	3	24	4	4	6	41	4	19	38
10	27	12	5	2	59	5	16	41	6	0	45	6	15	5	6	29	37	7	14	14	7	28	50
17	4	1	8	13	18	8	27	35	9	11	38	9	25	26	10	8	59	10	22	18	11	5	25
24	11	1	11	18	19	0	1	1	0	13	33	0	25	53	1	8	5	1	20	7	2	2	8
May 1	18	1	2	13	56	2	25	47	3	7	42	3	19	46	4	2	2	4	14	36	4	27	33
8	25	1	5	10	56	5	24	46	6	9	2	6	23	42	7	8	38	7	23	40	8	8	40
15	1	2	8	23	28	9	7	59	9	22	8	10	5	55	10	19	20	11	2	26	11	15	16
22	8	2	11	27	53	0	10	18	0	22	35	1	4	44	1	16	46	1	28	43	2	10	36
29	15	2	2	22	27	3	4	18	3	16	13	3	28	15	4	10	29	4	23	0	5	5	52
June 5	22	2	5	19	11	6	2	59	6	17	16	7	2	0	7	17	5	8	2	22	8	17	38
12	29	2	9	2	44	9	17	30	10	1	51	10	15	44	10	29	12	11	12	15	11	24	59
19	5	3	0	7	27	0	19	42	1	1	48	1	13	48	1	25	44	2	7	36	2	19	28
26	12	3	3	1	19	3	13	13	3	25	11	4	7	16	4	19	32	5	2	3	5	14	53
July 3	19	3	5	28	7	6	11	46	6	25	57	7	10	34	7	25	33	8	10	48	8	26	6
10	26	3	9	11	17	9	26	11	10	10	41	10	24	44	11	8	18	11	21	26	0	4	11
17	1	4	0	16	37	0	28	49	1	10	51	1	22	47	2	4	39	2	16	30	2	28	23
24	8	4	3	10	18	3	22	18	4	4	24	4	16	39	4	29	4	5	11	42	5	24	37
31	15	4	6	7	52	6	21	28	7	5	28	7	19	51	8	4	34	8	19	32	9	4	36
Aug. 7	22	4	9	19	37	10	4	26	10	18	56	11	3	2	11	16	42	11	29	55	0	12	45
14	29	4	0	25	14	1	7	28	1	19	29	2	1	24	2	13	15	2	25	7	3	7	9
21	5	5	3	19	4	4	1	14	4	13	33	4	26	3	5	8	45	5	21	40	6	4	49
28	12	5	6	18	13	7	1	54	7	15	50	8	0	2	8	14	26	8	29	1	9	13	40
Sept. 4	19	5	9	28	18	10	12	49	10	27	5	11	11	4	11	24	41	0	7	56	0	20	48
11	26	5	1	3	20	1	15	36	1	27	40	2	9	35	2	21	27	3	3	20	3	15	18
18	2	6	3	27	25	4	9	44	4	22	17	5	5	5	5	18	9	6	1	28	6	15	1
25	9	6	6	28	46	7	12	41	7	26	44	8	10	53	8	25	6	9	9	20	9	23	34
Oct. 2	16	6	10	7	44	10	21	47	11	5	41	11	19	21	0	2	45	0	15	52	0	28	41
9	23	6	1	11	13	1	23	29	2	5	33	2	17	28	2	29	19	3	11	12	3	23	10
16	30	6	4	5	20	4	17	44	5	0	27	5	13	31	5	26	53	6	10	41	6	24	42
23	6	7	7	8	55	7	23	15	8	7	37	8	21	55	9	6	8	9	20	12	10	4	6
30	13	7	10	17	55	11	1	32	11	14	59	11	28	15	0	11	19	0	24	11	1	6	50
Nov. 6	20	7	1	19	15	2	1	27	2	13	28	2	25	32	3	7	11	3	19	2	4	0	58
13	27	7	4	13	5	4	25	29	5	8	15	5	21	25	6	5	2	6	19	4	7	3	29
20	4	8	7	18	10	8	2	53	8	17	46	9	2	25	9	16	50	10	0	59	10	14	54
27	11	8	10	28	25	11	11	45	11	24	51	0	7	46	0	20	30	1	3	3	1	15	27
Dec. 4	18	8	1	27	41	2	9	46	2	21	43	3	3	34	3	15	22	3	27	11	4	9	4
11	25	8	4	21	3	5	3	28	5	16	9	5	29	16	6	12	52	6	26	58	7	11	31
18	3	9	7	26	27	8	11	35	8	26	45	9	11	48	9	26	34	10	10	59	10	25	0
25	10	9	11	8	37	11	21	52	0	4	49	0	17	31	1	0	0	1	12	18	1	24	28
Jan. 1	17	9	2	6	31	2	18	28	3	0	20	3	12	9	3	23	58	4	5	48	4	17	43

Longitudes of Planets

1960 A.D.

Ayanamsa on 1st Jan : 23° 17′ 54″

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	बृ ♃ गु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ Snd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	3 9	8 16s09	7 25 26	7 27 00	8 16 17	7 5 05	8 1 40	8 3 09
3	5 9	8 16 24	7 25 53	7 28 28	8 18 19	7 7 28	8 4s40	8 6 10
5	7 9	8 16 38	7 26 19	7 29 56	8 20 21	7 9 51	8 7 41	8 9 13
7	9 9	8 16 52	7 26 44	8 1 24	8 22 24	7 12 15	8 10 45	8 12 17
9	11 9	8 17 06	7 27 10	8 2 52	8 24 26	7 14 39	8 13 50	8 15 23
11	13 9	8 17 20	7 27 36	8 4 20	8 26 28	7 17 04	8 16 56	8 18 30
13	15 9	8 17 34	7 28 01	8 5 49	8 28 30	7 19 28	8 20 04	8 21 39
15	16 9	8 17r48	7 28 26	8 7 17	9 0 33	7 21 53	8 23 15	8 24 50
17	18 9	8 18 02	7 28 51	8 8 46	9 2 35	7 24 18	8 26 27	8 28 04
19	20 9	8 18 16	7 29 15	8 10 15	9 4 37	7 26 44	8 29 41	9 1 19
21	22 9	8 18 30	7 29 40	8 11 44	9 6 39	7 29 09	9 2 57	9 4 36
23	24 9	8 18 43	8 0 04	8 13 13	9 8 41	8 1 35	9 6 16	9 7 56
25	27 9	8 18 57	8 0 28	8 14 43	9 10 43	8 4 01	9 9 37	9 11☉18
27	29 9	8 19 10	8 0 52	8 16 12	9 12 45	8 6 28	9 13 00	9 14 43
29	1 10	8 19 21	8 1 15	8 17 42	9 14 47	8 8 54	9 16 27	9 18 10
31	4 10	8 19 37	8 1 38	8 19 12	9 16 49	8 11 20	9 19 55	9 21 40
Feb. 2	6 10	8 19 50	8 2 01	8 20 42	9 18 51	8 13 47	9 23 26	9 25 12
4	7 10	8 20 03	8 2 23	8 22 12	9 20 53	8 16 14	9 26 59	9 28 46
6	9 10	8 20 16	8 2 45	8 23 42	9 22 55	8 18 40	10 0 53	10 2 21
8	11 10	8 20 28	8 3 07	8 25 12	9 24 56	8 21 07	10 4 08	10 5 56
10	13 10	8 20 41	8 3 28	8 26 43	9 26 58	8 23 34	10 7 44	10 9r31
12	15 10	8 20 53	8 3 49	8 28 13	9 28 59	8 26 01	10 11 17	10 13 02
14	17 10	8 21 05	8 4 09	8 29 44	10 1 00	8 28 28	10 14 47	10 16 29
16	19 10	8 21 17	8 4 29	9 1 15	10 3 01	9 0 56	10 18 09	10 19 47
18	21 10	8 21 28	8 4 49	9 2 46	10 5 03	9 3 23	10 21 22	10 22 53
20	23 10	8 21 40	8 5 08	9 4 17	10 7 04	9 5 50	10 24 19	10 25 41
22	25 10	8 21 51	8 5 27	9 5 48	10 9 05	9 8 18	10 26 57	10 28 07
24	27 10	8 22 02	8 5 45	9 7 20	10 11 05	9 10 45	10 29 10	11 0 05
26	30 10	8 22 13	8 6 03	9 8 51	10 13 06	9 13 13	11 0 53	11 1 31
28	2 11	8 22 23	8 6 21	9 10 23	10 15 07	9 15 41	11 2 01	11 2 21
Mar. 1	4 11	8 22 33	8 6 37	9 11 54	10 17 07	9 18 08	11R 2 32	11 2 33
3	6 11	8 22 43	8 6 54	9 13 26	10 19 08	9 20 36	11 2 25	11 2 08
5	8 11	8 22 53	8 7 10	9 14 58	10 21 08	9 23 04	11 1r42	11 1 08
7	9 11	8 23 02	8 7 25	9 16 30	10 23 08	9 25 31	11 0 27	10 29 40
9	11 11	8 23 12	8 7 40	9 18 02	10 25 08	9 27 59	10 28 48	10 27☉52
11	13 11	8 23 20	8 7 54	9 19 34	10 27 08	10 0 27	10 26 54	10 25 55
13	15 11	8 23 29	8 8 07	9 21 06	10 29 08	10 2 54	10 24 57	10 24 00
15	17 11	8 23 37	8 8 20	9 22 38	11 1 07	10 5 22	10 23 06	10 22 16
17	19 11	8 23 45	8 8 33	9 24 10	11 3 07	10 7 50	10 21r30	10 20 49
19	22 11	8 23 52	8 8 44	9 25 42	11 5 06	10 10 18	10 20 14	10 19 44
21	24 11	8 24 00	8 8 55	9 27 15	11 7 05	10 12 46	10 19 21	10 19 04
23	26 11	8 24 07	8 9 06	9 28 47	11 9 04	10 15 13	10 18 53	10D18 48
25	28 11	8 24 13	8 9 16	10 0 20	11 11 03	10 17 41	10 18 49	10 18 56
27	30 11	8 24 19	8 9 25	10 1 52	11 13 02	10 20 09	10 19 08	10 19 25
29	2 12	8 24 25	8 9 33	10 3 25	11 15 01	10 22 37	10 19 47	10 20 14
31	4 12	8 24 31	8 9 41	10 4 57	11 16 59	10 25 05	10 20 45	10 21 21
Apr. 2	6 12	8 24 36	8 9 48	10 6 30	11 18 58	10 27 32	10 22 01	10 22 44
4	8 12	8 24 40	8 9 54	10 8 02	11 20 56	11 0 00	10 23 31	10 24 21
6	10 12	8 24 45	8 10 00	10 9 35	11 22 54	11 2 28	10 25 14	10 26 11
8	11 12	8 24 49	8 10 05	10 11 07	11 24 52	11 4 56	10 27 10	10 28 12
10	14 12	8 24 52	8 10 09	10 12 40	11 26 50	11 7 23	10 29 17	11 0 24
12	16 12	8 24 56	8 10 13	10 14 12	11 28 47	11 9 51	11 1 33	11 2 45
14	18 12	8 24 59	8 10 15	10 15 45	0 0 45	11 12 19	11 3 59	11 5 16
16	20 12	8 25 01	8 10 17	10 17 17	0 2 42	11 14 46	11 6 34	11 7 54

Ayanamsa on 1st Jan. : 23° 17′ 54″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																					
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr 16	20	12	8	25	01	8	10	17	10	17	17	0	2	42	11	14	46	11	6	34	11	7	54
18	22	12	8	25	03	8	10	18	10	18	49	0	4	40	11	17	11	11	9	17	11	10	41
20	25	12	8	25	05	8R	10	19	10	20	22	0	6	37	11	19	42	11	12	07	11	13	35
22	27	12	8	25	06	8	10	19	10	21	54	0	8	34	11	22	09	11	15	05	11	16	37
24	29	12	8	25	07	8	10	17	10	23	27	0	10	31	11	24	37	11	18	10	11	19	46
26	1	1	8R	25	08	8	10	16	10	24	59	0	12	28	11	27	04	11	21	23	11	23	01
28	2	1	8	25	08	8	10	13	10	26	31	0	14	24	11	29	32	11	24s	42	11	26	24
30	4	1	8	25	07	8	10	10	10	28	03	0	16	21	0	1	59	11	28	09	11	29	55
May 2	6	1	8	25	07	8	10	06	10	29	35	0	18	17	0	4	27	0	1	42	0	3	32
4	8	1	8	25	06	8	10	01	11	1	07	0	20	14	0	6	54	0	5	23	0	7	16
6	10	1	8	25	04	8	9	55	11	2	39	0	22	10	0	9	22	0	9	11	0	11	05
8	12	1	8	25	02	8	9	49	11	4	11	0	24	06	0	11	49	0	13	06	0	15	06
10	14	1	8	25	00	8	9	42	11	5	42	0	26	02	0	14	17	0	17	08	0	19	12
12	16	1	8	24	58	8	9	35	11	7	14	0	27	58	0	16	44	0	21	17	0	23	23
14	19	1	8	24	55	8	9	27	11	8	45	0	29	54	0	19	11	0	25	31	0	27	40
16	21	1	8	24	51	8	9	18	11	10	16	1	1	49	0	21	39	0	29	50	1	2⊙	00
18	23	1	8	24	48	8	9	08	11	11	47	1	3	45	0	24	06	1	4	12	1	6	23
20	25	1	8	24	44	8	8	58	11	13	19	1	5	40	0	26	33	1	8	34	1	10	46
22	27	1	8	24	39	8	8	47	11	14	49	1	7	36	0	29s	01	1	12	56	1	15	06
24	29	1	8	24	35	8	8	36	11	16	20	1	9	31	1	1	28	1	17	15	1	19	22
26	1	2	8	24	30	8	8	24	11	17	51	1	11	26	1	3	56	1	21	28	1	23r	32
28	3	2	8	24	24	8	8	12	11	19	21	1	13	22	1	6	23	1	25	34	1	27	34
30	5	2	8	24	19	8	7	59	11	20	51	1	15	17	1	8	50	1	29	31	2	1	27
June 1	6	2	8	24	13	8	7	46	11	22	21	1	17	12	1	11	18	2	3	19	2	5	10
3	8	2	8	24	06	8	7	32	11	23	51	1	19	07	1	13	45	2	6	57	2	8	42
5	10	2	8	24	00	8	7	18	11	25	20	1	21	02	1	16	12	2	10	24	2	12	04
7	13	2	8	23	53	8	7	04	11	26	50	1	22	56	1	18	39	2	13	41	2	15	15
9	15	2	8	23	46	8	6	50	11	28	19	1	24	51	1	21	07	2	16	46	2	18	14
11	17	2	8	23	39	8	6	35	11	29	48	1	26	46	1	23	34	2	19	40	2	21	03
13	20	2	8	23	31	8	6	20	0	1	17	1	28	40	1	26	01	2	22	22	2	23	39
15	22	2	8	23	24	8	6	05	0	2	45	2	0	35	1	28	29	2	24	53	2	26	04
17	24	2	8	23	16	8	5	50	0	4	13	2	2	30	2	0	56	2	27	11	2	28	16
19	26	2	8	23	08	8	5	34	0	5	41	2	4	24	2	3	23	2	29	17	3	0	15
21	28	2	8	23	00	8	5§	19	0	7	09	2	6	19	2	5	51	3	1	09	2	2	00
23	29	2	8	22	51	8	5	04	0	8	36	2	8	13	2	8⊙	18	3	2	47	3	3	31
25	1	3	8	22	43	8	4	48	0	10	04	2	10	08	2	10	46	3	4	11	3	4	46
27	3	3	8	22	34	8	4	33	0	11	30	2	12	02	2	13	13	3	5	18	3	5	45
29	5	3	8	22	26	8	4	18	0	12	57	2	13	57	2	15	41	3	6	05	3	6	27
July 1	7	3	8	22	17	8	4	03	0	14	23	2	15	51	2	18	08	3	6	41	3	6	51
3	9	3	8	22	08	8	3	49	0	15	49	2	17	45	2	20	36	3R	6	56	3	6	56
5	11	3	8	21	59	8	3	34	0	17	15	2	19	40	2	23	03	3	6	51	3	6	42
7	13	3	8	21§	51	8	3	20	0	18	40	2	21	34	2	25	31	3	6s	29	3	6	11
9	16	3	8	21	42	8	3	07	0	20	05	2	23	28	2	27	58	3	5	49	3	5	23
11	18	3	8	21	33	8	2	53	0	21	30	2	25	23	3	0	26	3	4	53	3	4	20
13	20	3	8	21	24	8	2	40	0	22	54	2	27	17	3	2	54	3	3	45	3	3	07
15	22	3	8	21	15	8	2	28	0	24	18	2	29	12	3	5	21	3	2	28	3	1	49
17	24	3	8	21	07	8	2	16	0	25	41	3	1	06	3	7r	49	3	1⊙	08	3	0	29
19	26	3	8	20	58	8	2	04	0	27	04	3	3	01	3	10	16	2	29	50	2	29	14
21	28	3	8	20	50	8	1	53	0	28	27	3	4	55	3	12	41	2	28	40	2	28	09
23	30	3	8	20	41	8	1	43	0	29	49	3	6	50	3	15	12	2	27	42	2	27r	19
25	2	4	8	20	33	8	1	33	1	1	11	3	8	44	3	17	40	2	27	01	2	26	48
27	3	4	8	20	25	8	1	24	1	2	33	3	10	39	3	20	07	2D	26	41	2	26	40
29	5	4	8	20	17	8	1	16	1	3	51	3	12	34	3	22	35	2	26	44	2	26	54
31	7	4	8	20	09	8	1	08	1	5	14	3	14	29	3	25	03	2	27	11	2	27	34

Ayanamsa on 1st Jan. : 23° 17′ 54″

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ☿ शु	बु ♀ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
July31	7	4	8R20 09	8R 1 08	1 5 14	3 14 29	3 25 03	2 27 11	2 27 34
Aug. 2	10	4	8 20 02	8 1 01	1 6 34	3 16 23	3 27 31	2 28 04	2 28 39
4	12	4	8 19 54	8 0 54	1 7 54	3 18 18	3 29 59	2 29 22	3 0 10
6	14	4	8 19 47	8 0 48	1 9 13	3 20 13	4 2 26	3 1 04	3 2 05
8	17	4	8 19 40	8 0 43	1 10 31	3 22 08	4 4 54	3 3 11	3 4 23
10	19	4	8 19 34	8 0 39	1 11 59	3 24 03	4 7 22	3 5 41	3 7 03
12	21	4	8 19 28	8 0 35	1 13 07	3 25 58	4 9 50	3 8 31	3 10 04
14	23	4	8 19 22	8 0 32	1 14 24	3 27 53	4 12 18	3 11 41	3 13 22
16	25	4	8 19 16	8 0 30	1 15 40	3 29 49	4 14 45	3 15 06	3 16 54
18	26	4	8 19 10	8 0 29	1 16 56	4 1 44	4 17 13	3 18 45	3 20☉38
20	28	4	8 19 05	8D0 28	1 18 12	4 3 40	4 19 41	3 22 34	3 24 30
22	30	4	8 19 00	8 0 28	1 19 26	4 5 35	4 22 09	3 26 28	3 28 27
24	2	5	8 18 56	8 0 29	1 20 40	4 7 31	4 24 37	4 0 27	4 2 27
26	4	5	8 18 52	8 0 31	1 21 53	4 9 27	4 27 05	4 4 26	4 8 26
28	6	5	8 18 48	8 0 33	1 23 06	4 11 23	4 29 32	4 8 25	4 10 23
30	8	5	8 18 45	8 0 36	1 24 18	4 13 19	5 2 00	4 12☉21	4 14 18
Sept.1	10	5	8 18 42	8 0 40	1 25 29	4 15 15	5 4 28	4 16 13	4 18 08
3	13	5	8 18 39	8 0 45	1 26 40	4 17 11	5 6 56	4 20 02	4 21 55
5	15	5	8 18 37	8 0 50	1 27 49	4 19 07	5 9 23	4 23 46	4 25 36
7	17	5	8 18 35	8 0 56	1 28 58	4 21 03	5 11 51	4 27 25	4 29 13
9	19	5	8 18 33	8 1 03	2 0 06	4 23 00	5 14 18	5 1 00	5 2 46
11	21	5	8 18 32	8 1 10	2 1 14	4 24 56	5 16 46	5 4 30	5 6 14
13	23	5	8 18 31	8 1 18	2 2 20	4 26 53	5 19 13	5 7 56	5 9 37
15	25	5	8D18 31	8 1 27	2 3 26	4 28 50	5 21 41	5 11 17	5 12 56
17	27	5	8 18 31	8 1 37	2 4 30	5 0 47	5 24 09	5 14 34	5 16 11
19	29	5	8 18 31	8 1 47	2 5 34	5 2 44	5 26 36	5 17 47	5 19 22
21	1	6	8 18 32	8 1 58	2 6 36	5 4 42	5 29 03	5 20 56	5 22 29
23	3	6	8 18 33	8 2 09	2 7 38	5 6 39	6 1 31	5 24r 0	5 25 32
25	5	6	8 18 35	8 2 21	2 8 38	5 8 37	6 3 58	5 27 02	5 28 31
27	7	6	8 18 37	8 2 34	2 9 37	5 10 34	6 6 26	5 29 59	6 1 26
29	9	6	8 18 39	8 2 47	2 10 35	5 12 32	6 8 53	6 2 53	6 4 18
Oct. 1	11	6	8 18 42	8 3 01	2 11 32	5 14 30	6 11 20	6 5 42	6 7 05
3	13	6	8 18 45	8 3 16	2 12 28	5 16 28	6 13 47	6 8 27	6 9 47
5	16	6	8 18 49	8 3 31	2 13 22	5 18 26	6 16 14	6 11 07	6 12 25
7	18	6	8 18 53	8 3 47	2 14 15	5 20 25	6 18 41	6 13 42	6 14 58
9	20	6	8 18 57	8 4 03	2 15 06	5 22 23	6 21 08	6 16 12	6 17 25
11	21	6	8 19 02	8 4 19	2 15 56	5 24 22	6 23 35	6 18 36	6 19 45
13	23	6	8 19 07	8 4 37	2 16 45	5 26 21	6 26 02	6 20 52	6 21 57
15	25	6	8 19 12	8 4 51	2 17 32	5 28 19	6 28 29	6 23 00	6 24 00
17	27	6	8 19 18	8 5 13	2 18 17	6 0 19	7 0 56	6 24 58	6 25 52
19	29	6	8 19 24	8 5 31	2 19 00	6 2 18	7 3 22	6 26 43	6 27 31
21	1	7	8 19 30	8 5 50	2 19 41	6 4 17	7 5 49	6 28 14	6 28 53
23	3	7	8 19 37	8 6 10	2 20 21	6 6 17	7 8 16	6 29 27	6 29 55
25	5	7	8 19 44	8 6 30	2 20 58	6 8 16	7 10 42	7 0 17	7 0 33
27	8	7	8 19 52	8 6 51	2 21 34	6 10 16	7 13 09	7R0 42	7 0 42
29	10	7	8 20 00	8 7 11	2 22 07	6 12 16	7 15 35	7 0 35	7 0 18
31	12	7	8 20 08	8 7 33	2 22 38	6 14 16	7 18 01	6 29s52	6 29 17
Nov. 2	14	7	8 20 16	8 7 54	2 23 06	6 16 16	7 20 27	6 28 32	6 27 38
4	16	7	8 20 25	8 8 17	2 23 32	6 18 16	7 22 53	6 26 36	6 25 26
6	18	7	8 20 34	8 8 39	2 23 56	6 20 16	7 25 19	6 24 12	6 22☉53
8	20	7	8 20 43	8 9 02	2 24 17	6 22 17	7 27 45	6 21 34	6 20 16
10	22	7	8 20 53	8 9 25	2 24 35	6 24 17	8 0 11	6 19 02	6 17 54
12	23	7	8 21 03	8 9 48	2 24 50	6 26 18	8 2 36	6 16r55	6 16 06
14	25	7	8 21 13	8 10 12	2 25 02	6 28 19	8 5 02	6 15 28	6 15 01

Longitudes of Planets CONDENSED

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	25	7	8 21 13	8 10 12	2 25 02	6 28 19	8 5 02	6 15 28	6 15 01
16	27	7	8 21 24	8 10 36	2 25 12	7 0 20	8 7 27	6D14 46	6 14 42
18	29	7	8 21 34	8 11 00	2 25 18	7 2 21	8 9 52	6 14 50	6 15 08
20	2	8	8 21 45	8 11 25	2R25 21	7 4 22	8 12 17	6 15 35	6 16 10
22	4	8	8 21 56	8 11 50	2 25 20	7 6 23	8 14 42	6 16 54	6 17 41
24	6	8	8 22 08	8 12 15	2 25 16	7 8 24	8 17 07	6 18 40	6 19 41
26	8	8	8 22 20	8 12 41	2 25 09	7 10 26	8 19 31	6 20 47	6 21 57
28	10	8	8 22 31	8 13 06	2 24 58	7 12 27	8 21 56	6 23 10	6 24 25
30	12	8	8 22 43	8 13 32	2 24 44	7 14 29	8 24 20	6 25 44	6 27 04
Dec. 2	14	8	8 22 56	8 13 58	2 24 27	7 16 30	8 26 44	6 28 27	6 29 50
4	16	8	8 23 08	8 14 24	2 24 06	7 18 32	8 29 07	7 1 15	7 2 42
6	18	8	8 23 21	8 14 51	2 23 42	7 20 34	9 1 30	7 4 09	7 5 37
8	20	8	8 23 33	8 15 18	2 23 14	7 22 36	9 3 53	7 7 06	7 8 35
10	22	8	8 23 46	8 15 44	2 22 44	7 24 38	9 6 16	7 10 04	7 11 35
12	24	8	8 23 59	8 16 11	2 22 10	7 26 40	9 8 38	7 13 05	7 14 36
14	26	8	8 24 13	8 16 38	2 21 34	7 28 42	9 11 00	7 16s07	7 17 39
16	28	8	8 24 26	8 17 06	2 20 55	8 0 44	9 13 22	7 19 10	7 20 42
18	30	8	8 24 39	8 17 33	2 20 13	8 2 46	9 15 43	7 22 14	7 23 47
20	2	9	8 24 53	8 18 00	2 19 30	8 4 48	9 18 04	7 25 19	7 26 52
22	5	9	8 25 07	8 18 28	2 18 45	8 6 50	9 20 24	7 28 25	7 29 58
24	7	9	8 25 20	8 18s56	2 17 59	8 8 53	9 22 44	8 1 31	8 3 05
26	9	9	8 25 34	8 19 23	2 17 12	8 10 55	9 25 04	8 4 30	8 6 13
28	11	9	8 25s48	8 19 51	2 16 24	8 12 57	9 27 23	8 7 47	8 9 21
30	13	9	8 26 02	8 20 19	2 15s36	8 15 00	9 29 41	8 10 56	8 12 31
Jan. 1	15	9	8 26 16	8 20 47	2 14 49	8 17 02	10 1 58	8 14 07	8 15 42

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	5 4 48	5 5 26	3 *R*27 14	6 15 24	4*R* 12 43	23 17 54
February	1	5 2 3	5 3 47	3 26 4	6 15 49	4 12 11	23 17 58
March	1	5 1 18	5 2 15	3 24 50	6R 15 44	4 11 28	23 18 1
April	1	5 1 22	5 0 36	3 23 52	6 15 10	4 10 45	23 18 4
May	1	5 0 30	4 29 1	3 D23 39	6 14 24	4 10 21	23 18 7
June	1	4 27 52	4 27 23	3 24 15	6 13 36	4D10 21	23 18 11
July	1	4 24 44	4 25 47	3 25 31	6 13 8	4 10 49	23 18 15
August	1	4 22 39	4 24 8	3 27 17	6D13 7	4 11 39	23 18 20
September	1	4 22 14	4 22 29	3 29 12	6 13 35	4 12 40	23 18 24
October	1	4 22 15	4 20 54	4 0 52	6 14 26	4 13 39	23 18 26
November	1	4 20 57	4 19 16	4 2 4	6 15 34	4 14 25	23 18 29
December	1	4 17 53	4 17 40	4 R 2 30	6 16 38	4 14 49	23 18 33
January	1	4 14 33	4 16 2	4 2 4	6 17 32	4 R14 42	23 18 38

Combustion or Heliacal Setting of Planets

Saturn	:	Upto Jan. 15 then from Dec. 28 to Jan. 27 ('61)
Jupiter	:	From Dec. 25 to Jan. 18 ('61)
Mars	:	— —
Venus	:	From May 22 to July 16.
Mercury	:	From Jan. 3 to Feb. 11, Mar. 5 to Mar. 17, Apr. 28 to May 27, July 7 to 24, Aug. 19 to Sept. 23, Oct. 31 to Nov. 12, Dec. 14 to Jan. 24 ('61).

Retrogression of Planets

PLANET	RETROGRADE Date			Long.			DIRECT Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Mar. 1,	20	43	11	2	33	Mar. 24,	13	40	10	18	48
	July 3,	18	46	3	6	56	July 27,	23	49	2	26	40
	Oct. 27,	19	25	7	0	42	Nov. 16,	25	9	6	14	42
Venus	—	—			—		—	—			—	
Mars	Nov. 20,	22	32	2	25	21	—	—			—	
Jupiter	Apr. 20,	10	42	8	10	19	Aug. 20,	22	0	8	0	28
Saturn	Apr. 27,	19	32	8	25	8	Sept. 15,	26	16	8	18	31
Uranus	—	—			—		Apr. 24,	13	2	3	23	38
	Dec. 1,	9	54	4	2	30	—	—			—	
Neptune	Feb. 9,	29	12	6	15	50	July 18,	12	13	6	13	4
Pluto	—	—			—		May 15,	7	23	4	10	17
	Dec. 10,	10	44	4	14	50	—	—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin	
Jan.	28	11	45	Māgha	Sukla
Feb.	26	23	54	Phālguna	,,
Mar.	27	13	7	Caitra	,,
Apr.	25	27	14	Vaiśākha	,,
May	25	17	56	Jyaiṣṭha	,,
June	24	8	57	Āṣāḍha	,,
July	23	24	1	Śrāvaṇa	,,
Aug.	22	14	45	Bhādra	,,
Sept.	20	28	42	Āśvina	,,
Oct.	20	17	32	Kārtika	,,
Nov.	18	29	16	Agrahā	,,
Dec.	18	16	17	Pauṣa	,,

Full-Moon	d	h	m	Hindi months begin	
Jan.	13	29	20	Māgha	Vadi
Feb.	12	22	54	Phālguna	,,
Mar.	13	13	56	Caitra	,,
Apr.	11	25	57	Vaiśākha	,,
May	11	11	12	Jyaiṣṭha	,,
June	9	18	32	Āṣāḍha	,,
July	8	25	7	Śrāvaṇa	,,
Aug.	7	8	11	Bhādra	,,
Sept.	5	16	49	Āśvina	,,
Oct.	4	27	46	Kārtika	,,
Nov.	3	17	28	Agrahā	,,
Dec.	3	9	54	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	12	42	Karkaṭa	on	July	15	25	48
Kumbha	on	Feb.	13	5	39	Siṁha	on	Aug.	16	10	14
Mina	on	Mar.	13	26	34	Kanyā	on	Sept.	16	10	9
Meṣa	on	Apr.	13	11	10	Tulā	on	Oct.	16	22	3
Vṛṣa	on	May	14	8	9	Vṛścika	on	Nov.	15	21	45
Mithuna	on	June	14	14	51	Dhanus	on	Dec.	15	12	13

Saka era 1882-83, Samvat 2017-18 (Mar. 17, Nov. 9), B.S 1367-68 (Apr. 14).
Kollam era 1136-37 (Aug. 17), 35 Plava (Mar. 17, Apr. 13).

Date	Beng. Date		*Nirayana* Long. of Moon (ব ☽ ৬) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	2	6	31	2	18	28	3	0	20	3	12	9	3	23	58	4	5	48	4	17	43
8	24	9	4	29	48	5	12	6	5	24	43	6	7	43	6	21	10	7	5	6	7	19	32
15	1	10	8	4	23	8	19	32	9	4	49	9	20	5	10	5	7	10	19	49	11	4	6
22	8	10	11	17	55	0	1	19	0	14	18	0	26	57	1	9	20	1	21	30	2	3	31
29	15	10	2	15	26	2	27	17	3	9	7	3	20	57	4	2	49	4	14	46	4	26	49
Feb. 5	22	10	5	9	1	5	21	26	6	4	6	6	17	5	7	0	26	7	14	11	7	28	20
12	29	10	8	12	53	8	27	46	9	12	50	9	27	58	10	13	1	10	27	48	11	12	15
19	7	11	11	26	16	0	9	50	0	22	59	1	5	43	1	18	8	2	0	17	2	12	15
26	14	11	2	24	6	3	5	55	3	17	44	3	29	37	4	11	36	4	23	43	5	6	0
Mar. 5	21	11	5	18	27	6	1	8	6	14	2	6	27	11	7	10	36	7	24	17	8	8	16
12	28	11	8	22	31	9	7	0	9	21	40	10	6	25	10	21	9	11	5	46	11	20	7
19	5	12	0	4	9	0	17	47	1	1	0	1	13	50	1	26	19	2	8	31	2	20	30
26	12	12	3	2	21	3	14	10	3	26	0	4	7	56	4	20	3	5	2	21	5	14	54
Apr. 2	19	12	5	27	41	6	10	44	6	24	0	7	7	30	7	21	11	8	5	1	8	19	1
9	26	12	9	3	7	9	17	20	10	1	36	10	15	55	11	0	13	11	14	25	11	28	57
16	3	1	0	12	15	0	25	45	1	8	54	1	21	43	2	4	13	2	16	25	2	28	25
23	10	1	3	10	17	3	22	5	4	3	57	4	15	56	4	28	7	5	10	34	5	23	20
30	17	1	6	6	26	6	19	51	7	3	34	7	17	30	8	1	35	8	15	45	8	29	57
May 7	24	1	9	14	8	9	28	15	10	12	19	10	26	18	11	10	11	11	23	58	0	7	35
14	31	1	0	21	0	1	4	12	1	17	8	1	29	48	2	12	12	2	24	21	3	6	19
21	7	2	3	18	10	3	29	58	4	11	49	4	23	48	5	6	1	5	18	32	6	1	26
28	14	2	6	14	43	6	23	25	7	12	29	7	26	49	8	11	20	8	25	55	9	10	28
June 4	21	2	9	24	54	10	9	9	10	23	12	11	7	2	11	20	40	0	4	7	0	17	22
11	28	2	1	0	25	1	13	15	1	25	54	2	8	19	2	20	32	3	2	35	3	14	28
18	3	3	3	26	17	4	8	4	4	19	54	5	1	52	5	14	4	5	26	35	6	9	29
25	10	3	6	22	50	7	6	38	7	20	52	8	5	28	8	20	18	9	5	15	9	20	10
July 2	17	3	10	4	56	10	19	27	11	3	39	11	17	32	0	1	6	0	14	23	0	27	23
9	24	3	1	10	9	1	22	41	2	5	3	2	17	13	2	29	15	3	11	10	3	22	59
16	31	3	4	4	46	4	16	33	2	28	24	5	10	23	5	22	34	6	5	3	6	17	55
23	7	4	7	1	11	7	14	56	7	29	8	8	13	45	8	28	42	9	13	50	9	29	0
30	14	4	10	14	3	10	28	51	11	13	18	11	27	22	0	11	1	0	24	16	1	7	11
Aug. 6	21	4	1	19	47	2	2	8	2	14	17	2	26	17	3	8	10	3	19	59	4	1	46
13	28	4	4	13	34	4	25	24	5	7	19	5	19	23	6	1	38	6	14	9	6	26	59
20	3	5	7	10	10	7	23	46	8	7	48	8	22	14	9	7	2	9	22	6	10	7	17
27	10	5	10	22	27	11	7	25	11	22	4	0	6	20	0	20	8	1	3	29	1	16	25
Sept.3	17	5	1	28	59	2	11	15	2	23	18	3	5	12	3	17	0	3	28	47	4	10	35
10	24	5	4	22	26	5	4	24	5	16	29	5	28	44	6	11	10	6	23	50	7	6	44
17	31	5	7	19	55	8	3	26	8	17	16	9	1	27	9	15	57	10	0	43	10	15	40
24	7	6	11	0	40	11	15	34	0	0	15	0	14	35	0	28	29	1	11	56	1	24	57
Oct. 1	14	6	2	7	33	2	19	50	3	1	52	3	13	43	3	25	30	4	7	17	4	19	8
8	21	6	5	1	7	5	13	15	5	25	34	6	8	5	6	20	50	7	3	46	7	16	55
15	28	6	8	0	16	8	13	50	8	27	36	9	11	36	9	25	48	10	10	12	10	24	45
22	5	7	11	9	22	11	23	58	0	8	24	0	22	36	1	6	27	1	19	54	2	2	56
29	12	7	2	15	34	2	27	53	3	9	56	3	21	48	4	3	35	4	15	24	4	27	18
Nov. 5	19	7	5	9	22	5	21	39	6	4	12	6	17	2	7	0	8	7	13	28	7	27	0
12	26	7	8	10	42	8	24	31	9	8	26	9	22	26	10	6	30	10	20	38	11	4	48
19	3	8	11	18	59	0	3	8	0	17	10	1	1	0	1	14	35	1	27	51	2	10	46
26	10	8	2	23	22	3	5	39	3	17	42	3	29	35	4	11	23	4	23	12	5	5	7
Dec. 3	17	8	5	17	13	5	29	35	6	12	16	6	25	19	7	8	42	7	22	25	8	6	23
10	24	8	8	20	32	9	4	47	9	19	4	10	3	19	10	17	29	11	1	35	11	15	34
17	1	9	11	29	26	0	13	9	0	26	44	1	10	7	1	23	18	2	6	14	2	18	55
24	8	9	3	1	21	3	13	33	3	25	33	4	7	25	4	19	13	5	1	1	5	12	55
31	15	9	5	25	0	6	7	21	6	20	3	7	3	8	7	16	38	8	0	32	8	14	48

Ayanamsa on 1st Jan. : 23° 18′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ गु	अं ♂ म	र ☉ व	शु ♀ ७	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	15	9	8 26s16	8 20s47	2R14 49	8 17 02	10 1 58	8 14s07	8 15 42
3	16	9	8 26 30	8 21 15	2 14 02	8 19 04	10 4 15	8 17 18	8 18 55
5	18	9	8 26 45	8 21⊙43	2 13 16	8 21 06	10 6 31	8 20⊙32	8 22 09
7	20	9	8 26 59	8 22 11	2 12 32	8 23 09	10 8 47	8 23 46	8 25 24
9	22	9	8 27 13	8 22 38	2 11 49	8 25 11	10 11 01	8 27 03	8 28 42
11	24	9	8 27⊙27	8 23 06	2 11 08	8 27 13	10 13 15	9 0 21	9 2 01
13	26	9	8 27 41	8 23 34	2 10 30	8 29 16	10 15 28	9 3 41	9 5 21
15	28	9	8 27 56	8 24 02	2 9 54	9 1 18	10 17 40	9 7 02	9 8 44
17	1	10	8 28 10	8 24 30	2 9 21	9 3 20	10 19 50	9 10 25	9 12 08
19	3	10	8 28 24	8 24r58	2 8 50	9 5 22	10 22 00	9 13 50	9 15 32
21	5	10	8 28 38	8 25 26	2 8 23	9 7 25	10 24 09	9 17 15	9 18 57
23	7	10	8 28 52	8 25 53	2 7 59	9 9 27	10 26 16	9 20 40	9 22r22
25	9	10	8 29 06	8 26 21	2 7 38	9 11 29	10 28 22	9 24 01	9 25 45
27	11	10	8 29r20	8 26 48	2 7 21	9 13 31	11 0 26	9 27 25	9 29 05
29	13	10	8 29 34	8 27 16	2 7 06	9 15 33	11 2 29	10 0 42	10 2 18
31	15	10	8 29 48	8 27 43	2 6 55	9 17 34	11 4 30	10 3 52	10 5 22
Feb. 2	17	10	9 0 02	8 28 10	2 6 47	9 19 36	11 6 30	10 6 50	10 8 13
4	18	10	9 0 15	8 28 37	2 6 43	9 21 38	11 8 27	10 9 32	10 10 45
6	20	10	9 0 29	8 29 04	2D6 41	9 23 39	11 10 22	10 11 52	10 12 53
8	22	10	9 0 42	8 29 30	2 6 42	9 25 41	11 12 15	10 13 46	10 14 30
10	24	10	9 0 55	8 29 57	2 6 46	9 27 42	11 14 06	10 15 05	10 15 31
12	27	10	9 1 08	9 0 23	2 6 53	9 29 44	11 15 54	10 15 47	10R15 52
14	29	10	9 1 21	9 0 49	2 7 03	10 1 45	11 17 40	10 15 46	10 15 30
16	1	11	9 1 34	9 1 15	2 7 16	10 3 46	11 19 23	10 15s04	10 14 28
18	4	11	9 1 47	9 1 41	2 7 31	10 5 48	11 21 02	10 13 44	10 12 52
20	6	11	9 2 00	9 2 06	2 7 49	10 7 49	11 22 38	10 11 55	10 10⊙52
22	8	11	9 2 12	9 2 31	2 8 09	10 9 50	11 24 11	10 9 47	10 8 41
24	10	11	9 2 24	9 2 56	2 8 31	10 11 50	11 25 39	10 7 35	10 6 32
26	11	11	9 2 36	9 3 21	2 8 56	10 13 51	11 27 03	10 5 32	10 4r36
28	13	11	9 2 48	9 3 45	2 9 22	10 15 51	11 28 22	10 3 46	10 3 02
Mar. 2	15	11	9 2 59	9 4 09	2 9 51	10 17 52	11 29 37	10 2 25	10 1 54
4	17	11	9 3 10	9 4 33	2 10 22	10 19 52	0 0 46	10 1 31	10 1 14
6	19	11	9 3 21	9 4 56	2 10 54	10 21 52	0 1 49	10D1 05	10 1 02
8	21	11	9 3 32	9 5 19	2 11 28	10 23 52	0 2 45	10 1 05	10 1 14
10	23	11	9 3 43	9 5 42	2 12 04	10 25 52	0 3 35	10 1 29	10 1 50
12	25	11	9 3 53	9 6 05	2 12 41	10 27 52	0 4 18	10 2 15	10 2 46
14	27	11	9 4 03	9 6 27	2 13 20	10 29 52	0 4 53	10 3 21	10 4 00
16	30	11	9 4 13	9 6 48	2 14 00	11 1 51	0 5 19	10 4 42	10 5 29
18	2	12	9 4 23	9 7 10	2 14 42	11 3 51	0 5 37	10 6 19	10 7 12
20	4	12	9 4 32	9 7 31	2 15 25	11 5 50	0 5R46	10 8 08	10 9 07
22	6	12	9 4 41	9 7 51	2 16 09	11 7 49	0 5 45	10 10 09	10 11 13
24	8	12	9 4 49	9 8 11	2 16 54	11 9 48	0 5 35	10 12 20	10 13 29
26	10	12	9 4 58	9 8 31	2 17 41	11 11 47	0 5 14	10 14 40	10 15 53
28	12	12	9 5 06	9 8 50	2 18 29	11 13 46	0 4 43	10 17 08	10 18 25
30	13	12	9 5 13	9 9 08	2 19 17	11 15 45	0 4 03	10 19 44	10 21 05
Apr. 1	15	12	9 5 21	9 9 27	2 20 07	11 17 43	0 3 14	10 22 27	10 23 51
3	17	12	9 5 28	9 9 44	2 20 58	11 19 41	0 2 16	10 25 17	10 26 45
5	19	12	9 5 35	9 10 02	2 21 49	11 21 39	0 1 12	10 28 14	10 29 44
7	21	12	9 5 41	9 10 18	2 22 42	11 23 38	0 0s02	11 1 17	11 2 51
9	24	12	9 5 47	9 10 34	2 23 35	11 25 35	11 28⊙48	11 4 26	11 6s03
11	26	12	9 5 53	9 10 50	2 24 29	11 27 33	11 27r33	11 7 41	11 9 21
13	28	12	9 5 58	9 11 05	2 25 24	11 29 31	11 26 17	11 11 03	11 12 46
15	30	12	9 6 03	9 11 20	2 26 19	0 1 29	11 25 04	11 14 31	11 16 17
17	2	1	9 6 07	9 11 33	2 27 15	0 3 26	11 23 55	11 18 05	11 19 54

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Ayanamsa on 1st Jan. : 23° 18′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	गु ♃ रु	म ♂ ग	र ☉ व	शु ♀ क	बु ☿ ध्	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	2	1	9 6 07	9 11 33	2 27 15	0 3 26	11 R23 55	11 18s05	11 19 54
19	4	1	9 6 12	9 11 47	2 28 12	0 5 23	11 22 52	11 21 45	11 23 38
21	6	1	9 6 15	9 11 59	2 29 10	0 7 20	11 21 55	11 25 32	11 27 28
23	8	1	9 6 19	9 12 11	3 0 08	0 9 17	11 21 07	11 29 25	0 1 24
25	10	1	9 6 22	9 12 12	3 1 17	0 11 14	11 20 28	0 3 24	0 5 26
27	12	1	9 6 25	9 12 23	3 2 06	0 13 11	11 19 58	0 7 30	0 9 34
29	14	1	9 6 27	9 12 44	3 3 06	0 15 08	11 19 38	0 11 40	0 13 47
May 1	16	1	9 6 29	9 12 53	3 4 06	0 17 04	11 19 27	0 15s56	0 18 04
3	18	1	9 6 30	9 13 02	3 5 07	0 19 00	11 D19 26	0 20 14	0 22 24
5	20	1	9 6 31	9 13 10	3 6 09	0 20 57	11 19 35	0 24 33	0 26 43
7	22	1	9 6 32	9 13 17	3 7 11	0 22 53	11 19 52	0 28 52	1 1 01
9	24	1	9R 6 32	9 13 24	3 8 13	0 24 49	11 20 18	1 3 09	1 5 15
11	27	1	9 6 32	9 13 30	3 9 16	0 26 45	11 20 52	1 7 20	1 9r22
13	29	1	9 6 32	9 13 35	3 10 19	0 28 41	11 21 34	1 11 23	1 13 21
15	1	2	9 6 31	9 13 39	3 11 22	1 0 37	11 22 22	1 15 18	1 17 11
17	3	2	9 6 30	9 13 43	3 12 26	1 2 32	11 23 17	1 19 01	1 20 49
19	5	2	9 6 28	9 13 46	3 13 31	1 4 28	11 24 18	1 22 33	1 24 15
21	6	2	9 6 26	9 13 48	3 14 36	1 6 23	11 25 24	1 25 53	1 27 28
23	8	2	9 6 24	9 13 60	3 15 41	1 8 19	11 26 35	1 29 00	2 0 29
25	10	2	9 6 21	9R 13 50	3 16 46	1 10 14	11 27 52	2 1 54	2 3 16
27	12	2	9 6 18	9 13 50	3 17 52	1 12 09	11 29 12	2 4 34	2 5 49
29	14	2	9 6 14	9 13 49	3 18 58	1 14 04	0 0 37	2 7 00	2 8 08
31	16	2	9 6 11	9 13 48	3 20 05	1 15 59	0 2 05	2 9 12	2 10 13
June 2	19	2	9 6 06	9 13 45	3 21 12	1 17 54	0 3 37	2 11 09	2 12 02
4	21	2	9 6 02	9 13 42	3 22 19	1 19 49	0 5 12	2 12 51	2 13 36
6	23	2	9 5 57	9 13 38	3 23 26	1 21 44	0 6 51	2 14 17	2 14 54
8	25	2	9 5 52	9 13 34	3 24 34	1 23 39	0 8 31	2 15 26	2 15 54
10	27	2	9 5 46	9 13 28	3 25 42	1 25 34	0 10 15	2 16 18	2 16 37
12	29	2	9 5 41	9 13 22	3 26 50	1 27 28	0 12 01	2 16 52	2 17 02
14	1	2	9 5 35	9 13 16	3 27 59	1 29 23	0 13 49	2R 17 07	2 17 09
16	3	2	9 5 28	9 13 08	3 29 07	2 1 18	0 15 39	2 17 05	2 16 58
18	5	2	9 5 22	9 13 00	4 0 17	2 3 12	0 17 31	2 16s45	2 16 28
20	7	2	9 5 15	9 12 51	4 1 26	2 5 07	0 19 25	2 16 08	2 15 45
22	9	2	9 5 08	9 12 42	4 2 36	2 7 01	0 21 20	2 15 18	2 14 48
24	11	2	9 5 00	9 12 31	4 3 46	2 8 56	0 23 17	2 14 16	2 13 43
26	13	2	9 4 53	9 12 21	4 4 56	2 10 50	0 25 15	2 13 08	2 12s33
28	15	2	9 4 45	9 12 10	4 6 06	2 12 45	0 27 16	2 11 57	2 11 22
30	17	2	9 4 37	9 11 58	4 7 17	2 14 39	0 29 16	2 10 48	2 10 16
July 2	20	2	9 4 29	9 11 45	4 8 27	2 16 33	1 1 18	2 9 47	2 9 20
4	22	2	9 4 21	9 11 33	4 9 39	2 18 28	1 3 22	2 8 57	2 8 37
6	24	2	9 4 12	9 11 19	4 10 50	2 20 22	1 5 26	2 8r21	2 8 10
8	26	2	9 4 04	9 11 06	4 12 01	2 22 16	1 7 32	2D 8 04	2 8 02
10	28	2	9 3 55	9 10 52	4 13 13	2 24 11	1 9 39	2 8 06	2 8 14
12	30	2	9 3 46	9 10 37	4 14 25	2 26 05	1 11 46	2 8 28	2 8 47
14	2	3	9 3 38	9 10 23	4 15 38	2 28 00	1 13 54	2 9 12	2 9 42
16	3	3	9 3 29	9 10 08	4 16 50	2 29 54	1 16 04	2 10 17	2 10 58
18	5	3	9 3s20	9 9 53	4 18 03	3 1 49	1 18 13	2 11 44	2 12 35
20	7	3	9 3 11	9 9 37	4 19 16	3 3 43	1 20 24	2 13 31	2 14 32
22	9	3	9 3 02	9 9 22	4 20 29	3 5 38	1 22 35	2 15 38	2 16 50
24	11	3	9 2 53	9 9 06	4 21 42	3 7 33	1 24 47	2 18 06	2 19 27
26	13	3	9 2 44	9 8s51	4 22 56	3 9 27	1 27 00	2 20 52	2 22 22
28	16	3	9 2 36	9 8 35	4 24 10	3 11 22	2 29 13	2 23 56	2 25 34
30	18	3	9 2 27	9 8 20	4 25 24	3 13 16	2 1 27	2 27 16	2 29 02
Aug. 1	20	3	9 2 18	9 8 04	4 26 38	3 15 11	2 3 42	3 0 51	3 2 43

Ayanamsa on 1st Jan. : 23° 18′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	गु ♃ रु	म ♂ ग	र ☉ व	शु ♀ क	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	20	3	9R 2 18	9R 8 04	4 26 38	3 15 11	2 3 42	3 0 51	3 2 43
3	22	3	9 2 10	9 7 49	4 27 52	3 17 06	2 5 57	3 4s38	3 6 35
5	25	3	9 2 02	9 7 34	4 29 07	3 19 01	2 8 13	3 8 34	3 10 34
7	26	3	9 1 53	9 7 19	5 0 22	3 20 56	2 10 29	3 12 36	3 14 39
9	28	3	9 1 45	9 7 05	5 1 37	3 22 51	2 12 46	3 16 43	3 18 46
11	30	3	9 1 38	9 6 50	5 2 52	3 24 46	2 15 03	3 20 50	3 22 54
13	2	4	9 1 30	9 6 37	5 4 08	3 26 41	2 17 21	3 24 57	3 26☌50
15	4	4	9 1 22	9 6 23	5 5 21	3 28 37	2 19 39	3 29 01	4 1 01
17	6	4	9 1 15	9 6 10	5 6 40	4 0 32	2 21 58	4 3 01	4 4 50
19	8	4	9 1 08	9 5 57	5 7 56	4 2 27	2 24 17	4 6 56	4 8 52
21	10	4	9 1 01	9 5 45	5 9 12	4 4 23	2 26 37	4 10 47	4 12 40
23	12	4	9 0 55	9 5 34	5 10 29	4 6 18	2 28 56	4 14 32	4 16 22
25	14	4	9 0 49	9 5 23	5 11 46	4 8 14	3 1 17	4 18 11	4 19 50
27	17	4	9 0 43	9 5 12	5 13 03	4 10 10	3 3 38	4 21 46	4 23 31
29	19	4	9 0 37	9 5 03	5 14 20	4 12 06	3 5 59	4 25 15	4 26 57
31	21	4	9 0 32	9 4 53	5 15 38	4 14 02	3 8 20	4 28 39	5 0 19
Sept. 2	23	4	9 0 27	9 4 45	5 16 55	4 15 58	3 10 42	5 1 58	5 3 35
4	25	4	9 0 22	9 4 37	5 18 13	4 17 54	3 13 05	5 5r11	5 6 47
6	27	4	9 0 18	9 4 30	5 19 31	4 19 50	3 15 27	5 8 20	5 9 53
8	29	4	9 0 14	9 4 24	5 20 50	4 21 47	3 17 50	5 11 25	5 12 55
10	30	4	9 0 10	9 4 18	5 22 08	4 23 44	3 20 14	5 14 24	5 15 52
12	2	5	9 0 07	9 4 13	5 23 27	4 25 40	3 22 37	5 17 19	5 18 44
14	4	5	9 0 04	9 4 09	5 24 46	4 27 37	3 25 01	5 20 09	5 21 32
16	6	5	9 0 02	9 4 06	5 26 06	4 29 34	3 27 26	5 22 53	5 24 14
18	8	5	9 0 00	9 4 03	5 27 25	5 1 31	3 29 50	5 25 33	5 26 50
20	10	5	8 29 58	9 4 01	5 28 45	5 3 28	4 2 15	5 28 06	5 29 21
22	13	5	8 29 57	9 4 00	6 0 05	5 5 26	4 4 40	6 0 34	6 1 45
24	15	5	8 29 56	9D4 00	6 1 25	5 7 23	4 7 06	6 2 54	6 4 01
26	17	5	8 29 55	9 4 00	6 2 45	5 9 21	4 9 32	6 5 06	6 6 09
28	19	5	8D29 55	9 4 02	6 4 06	5 11 18	4 11 58	6 7 10	6 8 08
30	21	5	8 29 55	9 4 04	6 5 26	5 13 16	4 14 24	6 9 04	6 9 56
Oct. 2	23	5	8 29 56	9 4 07	6 6 48	5 15 14	4 16 51	6 10 45	6 11 30
4	25	5	8 29 57	9 4 10	6 8 09	5 17 12	4 19 18	6 12 12	6 12 50
6	27	5	8 29 58	9 4 15	6 9 30	5 19 11	4 21 45	6 13 22	6 13 50
8	29	5	9 0 00	9 4 20	6 10s52	5 21 09	4 24 12	6 14 13	6 14 29
10	1	6	9 0 02	9 4 26	6 12 14	5 23 08	4 26 39	6R14 39	6 14 42
12	3	6	9 0 05	9 4 33	6 13 36	5 25 06	4 29 07	6 14 38	6 14 26
14	5	6	9 0 08	9 4 40	6 14 59	5 27 05	5 1 35	6 14s06	6 13 38
16	7	6	9 0 11	9 4 48	6 16 21	5 29 04	5 4 03	6 13 01	6 12 15
18	9	6	9 0 15	9 4 57	6 17 44	6 1 03	5 6 32	6 11 22	6 10 21
20	11	6	9 0 19	9 5 07	6 19 07	6 3 02	5 9 00	6 9 15	6 8 03
22	13	6	9 0 24	9 5 17	6 20 30	6 5 02	5 11 29	6 6☌49	6 5 33
24	16	6	9 0 29	9 5 28	6 21 54	6 7 01	5 13 58	6 4 19	6 3 09
26	18	6	9 0 34	9 5 39	6 23 18	6 9 01	5 16 26	6 2 04	6 1r08
28	20	6	9 0 40	9 5 52	6 24 42	6 11 01	5 18 56	6 0 20	5 29 43
30	22	6	9 0 46	9 6 05	6 26 06	6 13 00	5 21 25	5 29 17	5D29 03
Nov. 1	24	6	9 0 52	9 6 18	6 27 30	6 15 00	5 23 54	5 29 00	5 29 08
3	25	6	9 0 59	9 6 33	6 29 05	6 17 00	5 26 24	5 29 27	5 29 56
5	27	6	9 1 06	9 6 47	7 0 20	6 19 01	5 28 54	6 0 33	6 1 19
7	29	6	9 1 13	9 7 03	7 1 45	6 21 01	6 1 23	6 2 12	6 3 12
9	1	7	9 1 21	9 7 19	7 3 10	6 23 02	6 3 53	6 4 17	6 5 27
11	3	7	9 1 29	9 7 35	7 4 36	6 25 02	6 6 23	6 6 40	6 7 59
13	5	7	9 1 38	9 7 53	7 6 02	6 27 03	6 8 53	6 9 19	6 10 43
15	7	7	9 1 46	9 8 10	7 7 28	6 29 04	6 11 24	6 12 08	6 13 35

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			♄ · ष म	धु ♃ बृ	म ♂ ष	र ☉ सू	शु ♀ क	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	7	7	9 1 46	9 8 10	7 7s28	6 29 04	6 11 24	6 12 08	6 13 35
17	10	7	9 1 55	9 8 28	7 8 54	7 1 05	6 13 54	6 15 04	6 16 34
19	12	7	9 2 05	9 8 47	7 10 20	7 3 06	6 16 24	6 18 04	6 19 36
21	14	7	9 2 14	9 9 06	7 11 47	7 5 07	6 18 55	6 21 08	6 22 41
23	16	7	9 2 24	9 9 26	7 13 14	7 7 08	6 21 25	6 24 14	6 25s47
25	18	7	9 2 34	9 9 46	7 14 41	7 9 09	6 23 56	6 27 21	6 28 55
27	20	7	9 2 45	9 10 07	7 16 08	7 11 11	6 26 26	7 0 29	7 2 03
29	22	7	9 2 56	9 10 28	7 17 36	7 13 12	6 28 57	7 3 37	7 5 11
Dec. 1	24	7	9 3 06	9 10 50	7 19 03	7 15 14	7 1 28	7 6 45	7 8 19
3	25	7	9 3 18	9 11 11	7 20 31	7 17 16	7 3 58	7 9 53	7 11 27
5	27	7	9 3 29	9 11 34	7 22 00	7 19 17	7 6 29	7 13 01	7 14 35
7	29	7	9 3 41	9 11 56	7 23 28	7 21 19	7 9 00	7 16 09	7 17 43
9	2	8	9 3 53	9 12 20	7 24 57	7 23 21	7 11 31	7 19 17	7 20 51
11	4	8	9 4 05	9 12 43	7 26 25	7 25 23	7 14 02	7 22 25	7 24 00
13	6	8	9 4 17	9 13 07	7 27 54	7 27 25	7 16 33	7 25 34	7 27 08
15	8	8	9 4 29	9 13 31	7 29☌23	7 29 27	7 19 04	7 28 43	8 0☌17
17	10	8	9 4 42	9 13 56	8 0 53	8 1 29	7 21 35	8 1 52	8 3 26
19	12	8	9 4 55	9 14 20	8 2 22	8 3 31	7 24 05	8 5 01	8 6 36
21	14	8	9 5 08	9 14 45	8 3 52	8 5 34	7 26 36	8 8 12	8 9 47
23	16	8	9 5 21	9 15 11	8 5 22	8 7 36	7 29 07	8 11 23	8 12 59
25	18	8	9 5 34	9 15 36	8 6 52	8 9 38	8 1 38	8 14 35	8 16 11
27	20	8	9 5 47	9 16 02	8 8 23	8 11 40	8 4 09	8 17 48	8 19 24
29	22	8	9 6 01	9 16 29	8 9 53	8 13 43	8 6s40	8 21 01	8 22 38
31	24	8	9 6 14	9 16 55	8 11 24	8 15 45	8 9 11	8 24 16	8 25 53
Jan. 2	26	8	9 6 21	9 17 08	8 12 03	8 17 47	8 11 42	8 27 31	8 29 05

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	4 14 33	4 16 2	4 R 2 4	6 17 32	4R14 42	23 18 38
February	1	4 13 2	4 14 24	4 0 58	6R17 58	4 14 9	23 18 43
March	1	4 13 0	4 12 54	3 29 45	6 17 55	4 13 27	23 18 46
April	1	4 12 40	4 11 16	3 28 42	6 17 24	4 12 43	23 18 48
May	1	4 10 43	4 9 40	3D28 20	6 16 38	4 12 17	23 18 51
June	1	4 7 26	4 8 2	3 28 48	6 15 50	4D12 17	23 18 55
July	1	4 4 51	4 6 27	3 29 59	6 15 20	4 12 41	23 19 0
August	1	4 3 53	4 4 48	4 1 42	6D15 16	4 13 32	23 19 5
September	1	4 3 55	4 3 9	4 3 37	6 15 42	4 14 33	23 19 8
October	1	4 3 21	4 1 33	4 5 20	6 16 31	4 15 35	23 19 11
November	1	4 0 53	3 29 55	4 6 40	6 17 36	4 16 22	23 19 14
December	1	3 27 27	3 28 20	4 R 7 12	6 18 43	4R16 46	23 19 18
January	1	3 25 4	3 26 41	4 6 55	6 19 38	4 16 42	23 19 23

Combustion or Heliacal Setting of Planets

Saturn : From Dec. 28 ('60) to Jan. 27.

Jupiter : From Dec. 25 ('60) to Jan. 18.

Mars : From Oct. 9 to Mar. 10 ('62)

Venus : From Apr. 7 to Apr. 11, Dec. 30 to Feb. 21 ('62).

Mercury : Up to Jan. 24 then from Feb. 16 to Feb. 27, Apr. 10 to May 12, June 18 to July 6, Aug. 3 to Sept. 4, Oct. 14 to Oct. 27, Nov. 24 to Jan. 7 ('62).

PLANET	RETROGRADE						DIRECT					
	Date				Long.		Date				Long.	
			h	m	s ° ′				h	m	s ° ′	
Mercury	Feb. June Oct.	12, 14, 10,	20 22 27	3 40 58	10 15 52 2 17 9 6 14 42		Mar. July Oct.	6, 8, 31	28 25 23	57 0 38	10 1 2 2 8 3 5 29 0	
Venus	Mar.	20,	25	39	0 5 47		May	2,	9	50	11 19 25	
Mars	—		—		—		Feb.	6	8	22	2 6 41	
Jupiter	May.	25,	24	9	9 13 50		Sept.	23,	20	57	9 4 0	
Saturn	May	9.	22	13	9 6 32		Sept.	27,	25	6	8,29 55	
Uranus	— Dec.	6,	— 10	0	— 4 7 14		Apr. —	29,	13 —	14	3 28 20 —	
Neptune	Feb.	11,	16	59	6 18 0		July	20,	23	58	6 15 13	
Pluto	— Dec.	12,	— 17	36	— 4 16 48		May —	17,	10 —	48	4 12 18 —	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
						Jan.	1	28	36	Māgha	Vadi
Jan.	16	27	0	Māgha	Sukla	Jan.	31	24	17	Phālguna	,,
Feb.	15	13	40	Phālguna	,,	Mar.	2	19	5	Caitra	,,
Mar.	16	24	21	Caitra	,,	Apr.	1	11	17	Vaiśākha	,,
Apr.	15	11	7	Vaiśākha	,,	Apr.	30	24	10	Jyaiṣṭha	,,
May	14	22	24	Jyaiṣṭha (*Mala*)	,,	May	30	10	7	Jyaiṣṭha (*Adhika*)	,,
June	13	10	46	Jyaiṣṭha	,,	June	28	18	7	Āṣāḍha	,,
July	12	24	41	Āṣāḍha	,,	July	27	25	20	Śravaṇa	,,
Aug.	11	16	6	Śravaṇa	,,	Aug.	26	8	43	Bhādra	,,
Sept.	10	8	19	Bhādra	,,	Sept.	24	17	3	Āśvina	,,
Oct.	9	24	22	Āśvina	,,	Oct.	23	27	0	Kārtika	,,
Nov.	8	15	28	Kārtika	,,	Nov.	22	15	14	Mārga	,,
Dec.	7	29	22	Agrahā	,,	Dec.	22	6	12	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	22	56	Karkaṭa	on	July	16	7	52
Kumbha	on	Feb.	12	11	53	Simha	on	Aug.	16	16	14
Mina	on	Mar.	14	8	47	Kanyā	on	Sept.	16	16	6
Meṣa	on	Apr.	13	17	22	Tulā	on	Oct.	16	28	0
Vṛṣa	on	May	14	14	19	Vṛścika	on	Nov.	15	27	46
Mithuna	on	June	14	20	59	Dhanus	on	Dec.	15	18	29

SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	JAN.		FEB.		APRIL		MAY		JULY
	h m s		*h m s*		*h m s*		*h m s*		*h m s*
1	18 41 48	16	21 43 10	1	0 36 39	17	3 38 0	1	6 35 25
2	18 45 45	17	21 47 7	2	0 40 35	18	3 41 56	2	6 39 22
3	18 49 42	18	21 51 3	3	0 44 32	19	3 45 53	3	6 43 18
4	18 53 38	19	21 55 0	4	0 48 28	20	3 49 50	4	6 47 15
5	18 57 35	20	21 58 56	5	0 52 25	21	3 53 46	5	6 51 11
6	19 1 31	21	22 2 53	6	0 56 21	22	3 57 43	6	6 55 8
7	19 5 28	22	22 6 49	7	1 0 18	23	4 1 39	7	6 59 4
8	19 9 24	23	22 10 46	8	1 4 14	24	4 5 36	8	7 3 1
9	19 13 21	24	22 14 43	9	1 8 11	25	4 9 33	9	7 6 58
10	19 17 18	25	22 18 39	10	1 12 8	26	4 13 29	10	7 10 54
11	19 21 14	26	22 22 36	11	1 16 4	27	4 17 26	11	7 14 51
12	19 25 11	27	22 26 32	12	1 20 1	28	4 21 22	12	7 18 47
13	19 29 7	28	22 30 29	13	1 23 57	29	4 25 19	13	7 22 44
14	19 33 4	29	22 34 25	14	1 27 54	30	4 29 15	14	7 26 40
15	19 37 0			15	1 31 50	31	4 33 12	15	7 30 37
16	19 40 57			16	1 35 47			16	7 34 33
17	19 44 53		MAR.	17	1 39 43		JUNE	17	7 38 30
18	19 48 50			18	1 43 40			18	7 42 27
19	19 52 47	1	22 34 25	19	1 47 37			19	7 46 23
20	19 56 43	2	22 38 22	20	1 51 33	1	4 37 8	20	7 50 20
21	20 0 40	3	22 42 18	21	1 55 30	2	4 41 5	21	7 54 16
22	20 4 36	4	22 46 15	22	1 59 26	3	4 45 2	22	7 58 13
23	20 8 33	5	22 50 12	23	2 3 23	4	4 48 58	23	8 2 9
24	20 12 29	6	22 54 8	24	2 7 19	5	4 52 55	24	8 6 6
25	20 16 26	7	22 58 5	25	2 11 16	6	4 56 51	25	8 10 2
26	20 20 22	8	23 2 1	26	2 15 12	7	5 0 48	26	8 13 59
27	20 24 19	9	23 5 58	27	2 19 9	8	5 4 44	27	8 17 56
28	20 28 16	10	23 9 54	28	2 23 6	9	5 8 41	28	8 21 52
29	20 32 12	11	23 13 51	29	2 27 2	10	5 12 37	29	8 25 49
30	20 36 9	12	23 17 47	30	2 30 59	11	5 16 34	30	8 29 45
31	20 40 5	13	23 21 44			12	5 20 31	31	8 33 42
		14	23 25 41			13	5 24 27		
	FEB.	15	23 29 37		MAY	14	5 28 24		AUG.
		16	23 33 34	1	2 34 55	15	5 32 20		
1	20 44 2	17	23 37 30	2	2 38 52	16	5 36 17	1	8 37 38
2	20 47 58	18	23 41 27	3	2 42 48	17	5 40 13	2	8 41 35
3	20 51 55	19	23 45 23	4	2 46 45	18	5 44 10	3	8 45 31
4	20 55 51	20	23 49 20	5	2 50 41	19	5 48 6	4	8 49 28
5	20 59 48	21	23 53 16	6	2 54 38	20	5 52 3	5	8 53 25
6	21 3 45	22	23 57 13	7	2 58 35	21	5 56 0	6	8 57 21
7	21 7 41	23	0 1 10	8	3 2 31	22	5 59 56	7	9 1 18
8	21 11 38	24	0 5 6	9	3 6 28	23	6 3 53	8	9 5 14
9	21 15 34	25	0 9 3	10	3 10 24	24	6 7 49	9	9 9 11
10	21 19 31	26	0 12 59	11	3 14 21	25	6 11 46	10	9 13 7
11	21 23 27	27	0 16 56	12	3 18 17	26	6 15 42	11	9 17 4
12	21 27 24	28	0 20 52	13	3 22 14	27	6 19 39	12	9 21 0
13	21 31 20	29	0 24 49	14	3 26 10	28	6 23 35	13	9 24 57
14	21 35 17	30	0 28 45	15	3 30 7	29	6 27 32	14	9 28 54
15	21 39 14	31	0 32 42	16	3 34 4	30	6 31 29	15	9 32 50

Sidereal Time : Table I—*contd.*

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	AUGUST		SEPT.		OCT.		NOV.		DEC.
	h m s		*h m s*		*h m s*		*h m s*		*h m s*
16	9 36 47	12	11 23 14	9	13 9 41	5	14 56 8	2	16 42 35
17	9 40 43	13	11 27 10	10	13 13 37	6	15 0 4	3	16 46 31
18	9 44 40	14	11 31 7	11	13 17 34	7	15 4 1	4	16 50 28
19	9 48 36	15	11 35 3	12	13 21 30	8	15 7 57	5	16 54 24
20	9 52 33	16	11 39 0	13	13 25 27	9	15 11 54	6	16 58 21
21	9 56 29	17	11 42 56	14	13 29 23	10	15 15 50	7	17 2 17
22	10 0 26	18	11 46 53	15	13 33 20	11	15 19 47	8	17 6 14
23	10 4 23	19	11 50 50	16	13 37 16	12	15 23 43	9	17 10 10
24	10 8 19	20	11 54 46	17	13 41 13	13	15 27 40	10	17 14 7
25	10 12 16	21	11 58 43	18	13 45 10	14	15 31 37	11	17 18 4
26	10 16 12	22	12 2 39	19	13 49 6	15	15 35 33	12	17 22 0
27	10 20 9	23	12 6 36	20	13 53 3	16	15 39 30	13	17 25 57
28	10 24 5	24	12 10 32	21	13 56 59	17	15 43 26	14	17 29 53
29	10 28 2	25	12 14 29	22	14 0 56	18	15 47 [illegible]	15	17 33 50
30	10 31 58	26	12 18 25	23	14 4 52	19	15 51 19	16	17 37 46
31	10 35 55	27	12 22 22	24	14 8 49	20	15 55 16	17	17 41 43
		28	12 26 19	25	14 12 45	21	15 59 12	18	17 45 39
	SEPT.	29	12 30 15	26	14 16 42	22	16 3 9	19	17 49 36
		30	12 34 12	27	14 20 39	23	16 7 6	20	17 53 33
1	10 39 52			28	14 24 35	24	16 11 2	21	17 57 29
2	10 43 48		OCT.	29	14 28 32	25	16 14 59	22	18 1 26
3	10 47 45			30	14 32 28	26	16 18 55	23	18 5 22
4	10 51 41	1	12 38 8	31	14 36 25	27	16 22 52	24	18 9 19
5	10 55 38	2	12 42 5			28	16 26 48	25	18 13 15
6	10 59 34	3	12 46 1		NOV.	29	16 30 45	26	18 17 12
7	11 3 31	4	12 49 58			30	16 34 41	27	18 21 8
8	11 7 27	5	12 53 54	1	14 40 21			28	18 25 5
9	11 11 24	6	12 57 51	2	14 44 18		DEC.	29	18 29 2
10	11 15 21	7	13 1 48	3	14 48 14			30	18 32 58
11	11 19 17	8	13 5 44	4	14 52 11	1	16 38 38	31	18 36 55

SIDEREAL TIME—TABLE II—Correction for years

(Correction to the result of Table I for the years 1951 to 1961)

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
	m s	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*
Jan. & Feb.	−1 24	−2 21	+0 38	−0 19	−1 16	−2 13	+0 46	−0 12	−1 9	−2 6
Mar. to Dec.	−1 24	+1 36	+0 38	−0 19	−1 16	+1 43	+0 46	−0 12	−1 9	+1 51

1961 : −0*m* 53*s*

SIDEREAL TIME—TABLE III—Correction for places

Corrections for a few places are given below. For other places see the last page of Indian Ephemeris or the Tables of Ascendants.

Place	Correction	Place	Correction	Place	Correction
	m s		*m s*		*m s*
Allahabad	+0 0	Colombo	+0 2	Madras	+0 1
Bangalore	+0 2	Dhaka	−0 5	New York	+1 43
Bangkok	−0 12	Delhi	+0 3	Rangoon	−0 9
Bombay	+0 6	Greenwich	+0 54	Islamabad	+0 6
Calcutta	−0 4	Kuala Lumpur	−0 13	Varanasi	−0 0

The time interval of the epoch from 12h noon Local Mean Time is now to be subtracted from (if before noon) or added to (if after noon) the Sidereal time obtained from the above tables for 12h noon of the date and place in question. Before doing so the time interval is to be increased by 10 secs. per hour and then subtracted or added.

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decli	Lat.	Decli
1951										
January	2°N16′	1°N11′	1°S04′	10°S47′	1°S10′	18°S02′	1°S09′	22°S53′	2°N23′	20°S34′
February	2 24	1 24	1 02	8 20	0 56	9 39	1 32	12 S50	0 S02	22 17
March	2 30	2 08	1 01	5 47	0 40	0 S54	0 S58	1N06	2 S08	13 S11
April	2 32	3 05	1 03	2 52	0 20	8N37	0N28	16 08	1 N54	12N41
May	2 30	3 48	1 06	0 S11	0 S00	16 23	1 55	24 51	0 S23	11 17
June	2 24	3 58	1 11	2 N58	0N19	21 51	2 29	23 53	2 S40	14 06
July	2 17	3 31	1 18	3 41	0 N36	24 02	1 N10	14 44	1 N42	24 18
August	2 12	2 31	1 27	4 15	0 S32	23 00	2·S59	2 N54	0 S56	8 48
September	2 09	1N10	1 35	3 40	1N05	19 00	8 29	0 S46	3 S54	5 30
October	2 09	0 S17	1 38	2 14	1 17	13 33	5 13	5 N37	1 N52	2 N51
November	2 11	1 43	1 35	0 48	1 28	6 44	0 S12	3 04	1 S02	18 S31
December	2 N16	2 S40	1 S27	0N21	1N38	0 S02	2 N09	6 S38	2 S10	25 S37
1952										
January	2 N24	3 S30	1 S18	1N10	1 N47	6 S25	2N21	17 S24	2 N31	20 S21
February	2 33	3 32	1 11	3 01	1 55	11 29	1N06	22 14	1 S 8	22 15
March	2 40	3 01	1 06	5 20	1 56	14 32	0 S23	17 53	1 S12	6 S07
April	2 43	2 07	1 03	8 05	1 41	15 38	1 24	5 S40	3 N15	10N21
May	2 42	1 17	1 02	10 41	0 N46	14 17	1 25	8 N41	2 S47	3 00
June	2 36	0 54	1 03	13 05	0 S34	12 37	0 S31	20 26	0 S34	19 45
July	2 28	1 07	1 05	14 56	1 26	14 09	0N38	23 39	1 N35	21 31
August	2 22	1 55	1 09	16 14	1 52	18 16	1 24	16 30	4 S02	8 44
September	2 17	3 07	1 14	16 47	2 01	22 32	1 13	2N16	0 N12	14N51
October	2 15	4 29	1 18	16 33	1 58	25 11	0 N08	12 S44	0 N50	4 S16
November	2 16	5 ·54	1 20	15 37	1 45	24 25	1 S19	23 32	2 S24	22 27
December	2N19	7 S04	1 S16	14 N33	1 S26	19 S55	2 S12	24 S22	1 N18	20 S17
1953										
January	2 N25	7 S52	1 S07	14 N04	1 S01	12 S08	1 S10	14 S48	0 N27	22 S45
February	2 34	8 07	0 58	14 34	0 35	2 S40	0N41	0 N08	2 S05	19 S38
March	2 41	7 50	0 51	15 43	0 S13	6N00	4 13	12 53	1N21	0N30
April	2 46	7 06	0 45	17 23	0N09	14 29	7 40	18 33	0N21	3 S44
May	2 46	6 13	0 41	19 03	0 28	20 34	3 N09	8 54	2 S40	4 N31
June	2 41	5 42	0 38	20 33	0 43	23 52	1 S54	8 29	1 N32	24 32
July	2 33	5 41	0 37	21 39	0 55	23 53	3 02	15 41	0 S20	18 55
August	2 25	6 13	0 35	22 21	1 04	20 53	2 05	21 19	4 S19	16 17
September	2 19	7 14	0 35	22 42	1 10	15 31	0 S19	19 21	1 N46	12N24
October	2 16	8 27	0 35	22 48	1 14	8 52	1 N06	9 N28	0 S41	10 S08
November	2 14	9 46	0 35	22 48	1 16	1 N18	1 35	5 S03	2 S52	22 59
December	2 N16	10 S55	0 S32	22 N43	1 N14	5 S58	1 N00	17 S50	2 N25	14 S58
1954										
January	2 N22	11 S47	0 S28	22 N32	1 N10	12 S44	0 S11	23 S36	1 S03	24 S20
February	2 28	12 12	0 22	22 24	0 59	18 04	1 12	18 20	1 S30	15 04
March	2 35	12 07	0 17	22 32	0 41	21 19	1 25	6 S24	3 N43	4 07
April	2 41	11 36	0 12	22 53	0N07	23 15	0 S44	9N14	1 S52	8 S20
May	2 42	10 53	0 08	23 13	0 S55	24 15	0 N31	21 10	1 S18	10N38
June	2 38	10 15	0 05	23 21	2 43	25 55	1 39	24 42	2N09	25 35
July	2 31	10 02	0 S02	23 09	4 34	28 01	1 49	17 54	3 S46	18 40
August	2 23	10 20	0N01	22 35	4 54	28 16	0N34	4 N02	0 S54	21 09
September	2 16	11 05	0 04	21 46	4 S06	27 32	2 S02	11 S16	1N14	6N00
October	2 11	12 07	0 08	20 59	3 08	25 25	5 02	24 41	2 S21	14 S26
November	2 08	13 17	0 13	20 27	2 10	20 39	6 S01	25 52	0N02	12 35
December	2 N03	14 S20	0 N17	20 N31	1 S20	18 S33	0N 11	16 S12	0 N58	18 S01

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1955										
January	2°N12′	15°S11′	0°N23′	21°N10′	0°S37′	4°S36′	3°N55′	15°S24′	1°S59′	24°S43′
February	2 17	15 40	0 26	21 57	0 S02	4 N43	3 19	20 01	1 S05	10 50
March	2 23	15 45	0 29	22 23	0 N21	12 26	1 N26	19 37	1 N15	15 08
April	2 29	15 28	0 29	22 24	0 40	19 14	0 S30	11 S24	2 S23	6 S00
May	2 31	14 55	0 30	21 59	0 53	23 18	1 39	1 N31	0 N55	18 N20
June	2 29	14 19	0 31	21 07	1 02	24 25	1 30	14 55	0 32	23 58
July	2 23	13 59	0 32	19 51	1 07	22 32	0 S29	22 41	4 S17	18 50
August	2 15	14 05	0 34	18 11	1 09	17 58	0 N44	21 00	1 N25	20 57
September	2 07	14 36	0 37	16 17	1 08	11 30	1 24	9 N59	0 S15	0 N04
October	2 02	15 24	0 41	14 27	1 05	4 N09	1 07	4 S54	3 S40	14 S23
November	1 58	16 21	0 46	12 50	0 59	3 S48	0 N01	18 41	2 N10	5 S42
December	1 N57	17 S15	0 N53	11 N56	0 N49	11 S08	1 S11	24 S37	0 S32	21 S51
1956										
January	1 N58	18 S00	1 N01	12 N03	0 N36	17 S33	1 S46	19 S34	2 S03	23 S10
February	2 02	18 28	1 08	13 04	0 N17	21 55	1 S08	5 S58	3 N35	16 21
March	2 06	18 38	1 10	14 23	0 S08	23 35	0 N29	9 N03	1 S05	17 S22
April	2 12	18 31	1 09	15 18	0 45	22 33	2 41	22 00	1 S35	0 N53
May	2 14	18 10	1 06	15 17	1 34	19 13	4 01	27 21	2 N38	22 59
June	2 13	17 42	1 02	14 23	2 40	14 25	2 N19	25 26	3 S11	17 22
July	2 09	17 22	1 00	12 49	4 00	10 02	3 S53	19 29	1 S34	21 30
August	2 01	17 20	0 58	10 41	5 31	7 50	5 07	18 19	1 N36	15 N53
September	1 54	17 39	0 58	8 14	6 13	9 21	2 47	18 47	2 S28	4 S30
October	1 47	18 13	1 00	5 46	4 37	10 39	0 S14	13 14	1 S11	0 S44
November	1 43	18 56	1 04	3 25	2 14	7 34	1 N30	1 N17	1 N12	10 14
December	1 N41	19 S37	1 N10	1 N37	0 S41	1 S41	1 N50	12 S02	1 S50	24 S48
1957										
January	1 N40	20 S11	1 N17	0 N37	0 N16	5 N39	0 N59	21 S39	0 N06	20 S35
February	1 42	20 34	1 26	0 45	0 48	12 57	0 S20	21 40	1 N08	21 17
March	1 45	20 43	1 32	1 49	1 04	18 37	1 14	13 S01	2 S04	15 S23
April	1 49	20 42	1 33	3 23	1 13	23 00	1 22	1 N43	0 N27	9 N11
May	1 52	20 32	1 29	4 24	1 17	24 43	0 S37	15 39	1 N35	18 44
June	1 52	20 16	1 22	4 24	1 17	23 37	0 N30	23 51	3 S37	13 11
July	1 48	20 01	1 16	3 22	1 13	19 59	1 28	21 43	0 N55	24 16
August	1 42	19 56	1 10	1 N30	1 08	14 07	1 26	10 N15	0 N17	10 N45
September	1 35	20 05	1 07	0 S52	1 00	6 N48	0 N14	5 S24	4 S25	1 S44
October	1 29	20 25	1 06	3 23	0 50	0 S59	1 S33	19 08	1 N43	5 N05
November	1 24	20 54	1 07	5 57	0 38	9 00	3 05	26 25	0 S14	16 S03
December	1 N21	21 S20	1 N08	8 S08	0 N23	15 S56	2 S55	23 S59	2 S25	25 S51
1958										
January	1 N20	21 S41	1 N14	9 S49	0 N05	21 S16	0 N50	15 S27	3 N11	20 S14
February	1 20	21 54	1 21	10 40	0 S17	23 43	7 34	11 19	0 S47	22 28
March	1 22	21 58	1 27	10 36	0 40	22 53	6 04	13 37	1 S56	10 S35
April	1 24	21 58	1 32	9 37	1 08	18 38	1 N49	11 35	2 N53	13 N49
May	1 26	21 55	1 31	8 18	1 36	11 56	1 S00	2 S52	1 S47	6 10
June	1 26	21 51	1 25	7 21	2 01	3 S38	2 07	9 N25	1 S59	16 07
July	1 24	21 46	1 17	7 22	2 19	4 N24	1 42	19 25	1 N54	23 25
August	1 19	21 43	1 09	8 22	2 25	11 26	0 S23	22 32	2 S09	7 49
September	1 13	21 47	1 03	10 06	2 16	16 19	0 N55	15 N50	2 S12	11 N11
October	1 08	21 58	0 59	12 08	1 41	18 53	1 27	2 N40	1 N34	0 S03
November	1 03	22 12	0 56	14 18	0 S24	19 35	1 N00	12 S23	1 S39	20 S24
December	0 N59	22 S23	0 N56	16 S14	1 N07	18 N34	0 S05	22 S27	1 S15	24 S37

LATITUDES AND DECLINATIONS

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli
1959										
January	0° N57′	22° S29′	0° N56′	17° S51′	1° N52′	18° N50′	1° S11′	22° S48′	1° N38′	21° S14′
February	0 56	22 28	0 59	18 57	2 01	21 14	1 32	12 S36	1 S51	21 28
March	0 56	22 24	1 02	19 27	1 57	23 39	0 S56	1 N22	0 S27	3 S31
April	0 57	22 19	1 05	19 27	1 48	25 08	0 N31	16 21	2 N30	4 N36
May	0 57	22 18	1 07	18 55	1 38	24 33	1 58	24 57	2 S55	2 35
June	0 57	22 23	1 04	18 06	1 26	21 34	2 30	23 50	0 N18	21 47
July	0 55	22 29	0 58	17 30	1 14	16 36	1 N07	14 42	1 N05	20 30
August	0 52	22 35	0 51	17 32	1 01	9 49	3 S14	3 11	4 S51	11 24
September	0 47	22 39	0 41	18 15	0 46	1 N59	8 34	0 N32	1 N07	15 N01
October	0 42	22 44	0 38	19 21	0 N31	5 S57	4 S55	6 28	0 N18	6 S26
November	0 38	22 46	0 34	20 37	0 N15	13 41	0 S05	3 N14	2 S45	23 04
December	0 N35	22 S44	0 N31	21 S42	0 S03	19 S47	2 N10	6 S44	2 N23	16 S35
1960										
January	0 N33	22 S34	0 N28	22 S30	0 S22	23 S27	2 N18	17 S33	0 S10	23 S31
February	0 31	22 18	0 27	22 54	0 42	23 29	1 N03	22 16	2 S02	18 S17
March	0 30	22 01	0 26	23 01	0 59	19 56	0 S25	17 45	2 N47	0 N54
April	0 29	21 47	0 25	22 59	1 15	12 59	1 25	5 S25	0 S55	6 S53
May	0 28	21 43	0 24	23 00	1 24	4 S25	1 23	8 N56	2 S12	6 N59
June	0 26	21 52	0 21	23 05	1 26	4 N51	0 S29	20 35	2 N03	25 N27
July	0 24	22 08	0 18	23 07	1 18	12 51	0 N40	23 37	1 S48	18 24
August	0 21	22 25	0 13	23 07	1 00	19 00	1 25	16 17	2 S50	19 01
September	0 18	22 36	0 08	23 10	0 S31	22 27	1 12	1 N59	1 N42	9 N34
October	0 15	22 39	0 04	23 20	0 N08	23 30	0 N06	12 S59	1 S25	12 S27
November	0 12	22 34	0 N00	23 26	1 08	23 36	1 S22	23 40	2 S09	20 S30
December	0 N09	22 S19	0 S03	23 S18	2 N30	24 N43	2 S13	24 S19	1 N50	16 S04
1961										
January	0 N07	21 S54	0 S05	22 S47	3 N42	26 N54	1 S39	14 S39	1 S33	24 S47
February	0 05	21 22	0 09	21 54	3 37	27 04	0 N48	0 N16	0 S39	12 32
March	0 03	20 52	0 12	20 54	3 01	26 25	4 27	12 48	2 N58	9 57
April	0 N00	20 26	0 16	19 48	2 23	25 09	7 49	17 30	2 S16	7 S43
May	0 S02	20 14	0 21	19 04	1 54	22 32	2 N52	7 41	0 S22	14 N14
June	0 05	20 21	0 27	18 56	1 29	18 03	1 S57	8 17	1 N45	25 08
July	0 08	20 43	0 33	19 30	1 07	12 06	2 59	15 47	4 S40	18 44
August	0 10	21 11	0 38	20 28	0 46	4 N41	2 01	21 24	0 N23	21 40
September	0 13	21 33	0 40	21 11	0 26	3 S24	0 S16	19 16	0 N39	3 N08
October	0 15	21 41	0 40	21 20	0 N07	11 09	1 N08	9 N16	3 S03	15 S28
November	0 16	21 33	0 40	20 53	0 S11	18 09	1 34	5 S19	1 N37	7 11
December	0 S18	21 S10	0 S39	19 S51	0 S29	22 S46	0 N58	18 S01	0 N16	19 S54

Year	Uranus		Neptune		Pluto	
	Lat.	Decli	Lat.	Decli	Lat.	Decli
1951	0° N20′	23° N34′	1° N37′	6° S06′	8° N39′	23° N12′
1952	0 23	23 17	1 38	6 53	9 06	23 00
1953	0 26	22 50	1 40	7 40	9 33	22 51
1954	0 29	22 13	1 41	8 26	9 58	22 38
1955	0 32	21 25	1 42	9 11	10 24	22 25
1956	0 35	20 29	1 42	9 55	10 49	22 11
1957	0 38	19 24	1 43	10 39	11 14	21 51
1958	0 40	18 10	1 44	11 22	11 39	21 34
1959	0 42	16 49	1 44	12 04	12 05	21 12
1960	0 44	15 20	1 44	12 45	12 29	20 52
1961	0 N46	13 N40	1 N45	15 S25	12 N52	20 N28

SAYANA TRANSIT OF SUN

(Sun's entry into Tropical Signs or Sayana Rasis)

Time in I.S.T.

Sign	1951			1952			1953			1954		
		d	*h*		*d*	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	21	2·4	Jan.	21	8·2	Jan.	20	13·9	Jan.	20	19·7
Pisces	Feb.	19	16·7	Feb.	19	22·5	Feb.	19	4·2	Feb.	19	10·1
Aries	Mar.	21	15·9	Mar.	20	21·7	Mar.	21	3·5	Mar.	21	9·4
Taurus	Apr.	21	3·3	Apr.	20	9·1	Apr.	20	14·9	Apr.	20	20·8
Gemini	May	22	2·8	May	21	8·6	May	21	14·4	May	21	20·3
Cancer	June	22	10·9	June	21	16·7	June	21	22·5	June	22	4·4
Leo	July	23	21·9	July	23	3·7	July	23	9·4	July	23	15·3
Virgo	Aug.	24	4·8	Aug.	23	10·6	Aug.	23	16·3	Aug.	23	22·1
Libra	Sept.	24	2·1	Sept.	23	7·9	Sept.	23	13·6	Sept.	23	19·4
Scorpio	Oct.	24	11·1	Oct.	23	16·9	Oct.	23	22·6	Oct.	24	4·4
Sagittarius	Nov.	23	8·4	Nov.	22	14·1	Nov.	22	19·9	Nov.	23	1·7
Capricorn	Dec.	22	21·5	Dec.	22	3·2	Dec.	22	9·0	Dec.	22	14·9

	1955			1956			1957			1958		
		d	*h*		*d*	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	21	1·5	Jan.	21	7·3	Jan.	20	13·2	Jan.	20	19·0
Pisces	Feb.	19	15·8	Feb.	19	21·6	Feb.	19	3·5	Feb.	19	9·3
Aries	Mar.	21	15·1	Mar.	20	20·9	Mar.	21	2·8	Mar.	21	8·6
Taurus	Apr.	21	2·5	Apr.	20	8·2	Apr.	20	14·2	Apr.	20	20·0
Gemini	May	22	1·9	May	21	7·[illegible]	May	21	13·7	May	21	19·4
Cancer	June	22	10·0	June	21	15·9	June	21	21·9	June	22	3·5
Leo	July	23	20·9	July	23	2·9	July	23	8·8	July	23	14·4
Virgo	Aug.	24	3·8	Aug.	23	9·8	Aug.	23	15·6	Aug.	23	21·3
Libra	Sept.	24	1·2	Sept.	23	7·1	Sept.	23	13·0	Sept.	23	18·7
Scorpio	Oct.	24	10·2	Oct.	23	16·1	Oct.	23	21·9	Oct.	24	3·7
Sagittarius	Nov.	23	7·5	Nov.	22	13·4	Nov.	22	19·2	Nov.	23	1·0
Capricorn	Dec.	22	20·7	Dec.	22	2·5	Dec.	22	8·3	Dec.	22	14·2

	1959			1960			1961			1962		
		d	*h*		*d*	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	21	0·8	Jan.	21	6·7	Jan.	20	12·5	Jan.	20	18·5
Pisces	Feb.	19	15·1	Feb.	19	20·9	Feb.	19	2·8	Feb.	19	8·8
Aries	Mar.	21	14·4	Mar.	20	20·2	Mar.	21	2·0	Mar.	21	8·0
Taurus	Apr.	21	1·8	Apr.	20	7·6	Apr.	20	13·4	Apr.	20	19·4
Gemini	May	22	1·2	May	21	7·1	May	21	12·9	May	21	18·8
Cancer	June	22	9·3	June	21	15·2	June	21	21·0	June	22	2·9
Leo	July	23	20·3	July	23	2·1	July	23	7·9	July	23	13·8
Virgo	Aug.	24	3·2	Aug.	23	9·1	Aug.	23	14·8	Aug.	23	20·7
Libra	Sept.	24	0·7	Sept.	23	6·5	Sept.	23	12·2	Sept.	23	18·1
Scorpio	Oct.	24	9·7	Oct.	23	15·5	Oct.	23	21·3	Oct.	24	3·2
Sagittarius	Nov.	23	7·0	Nov.	22	12·8	Nov.	22	18·6	Nov.	23	0·5
Capricorn	Dec.	22	20·1	Dec.	22	1·9	Dec.	22	7·8	Dec.	22	13·8

Example of Moon's latitude

Find the latitude of Moon at 5-30 A.M. on October 25, 1955.

At the epoch Moon = 9s 19° 10′, Rahu = 7s 24° 57′. Moon − Rahu = 1s 24° 13′ = 54° 13′. Against this figure, the latitude is obtained from the table on page 82 as 4° 10′N approximately (actual value is 4° 10′ N)

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0′S	360°	45°	N3° 38′S	315°	90°	N5° 9′S	270°	135°	N3° 38′S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declination of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North ; if greater than 130° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.
0°	0° 0′	180°	23°	8° 57′	157°	46°	16° 39′	134°	69°	21° 49′	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	60	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, the true decli.=decli. of place+reduced lat.
If lat. is South, the true decli.=decli. of place−reduced lat.

When declination of Place is South—

If lat. is North, the true decli.=decli of place−reduced lat.
If lat. is South, the true decli.=decli of place+reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
°	°	°	°		°	°	°	°	
0	180	180	360	0·917	50	130	230	310	0·963
10	170	190	350	0·920	60	120	240	300	0·978
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

Example :—Find the declination of Moon on 25 Oct. 1955. N. long. of Moon on that date=9s 19° 10′. *Ayanamsa*=23° 15′. Therefore trop. long.=10s 12° 25′=312° 25′. Now the *declination of place* is found to be 17° S 05′ and the *multiplier* is found from the above table as 0·959. The latitude of Moon on that date is 4°N10′=250′. This multiplied by ·959 gives 240′=4°0′N. Here we get declination of place as south and the latitude as north. Hence the true declination=17°S05′−4°0′=13°S5′ (This agrees with the actual value).

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ☉. If ☽ − ☉ is less than 12°, the 1st *tithi* of the light half *(Sukla paksha)* is then current. This *tithi* will remain current until ☽ − ☉ becomes exactly 12° degrees. So for other *tithis* also.

The following table shows the long. of ☽ − ☉ indicating the end of each *tithi*. If ☽ − ☉ is greater than 6 signs, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half *(Krishna paksha)* of the month.

☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Entrance of Planets into Nirayana Signs

MARS

Enters :—	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y	d	m	y
Mesha				1	4	51	11	3	53	16	2	55	17	1	57	10	7	58	11	6	60
"																17	11	58			
Vrisha				12	5	51	21	4	53	1	4	55	7	3	57	1	9	58	23	7	60
"																24	1	59			
Mithuna				24	6	51	4	6	53	15	5	55	23	4	57	29	3	59	8	9	60
Karkata				8	8	51	19	7	53	30	6	55	10	6	57	20	5	59	22	4	61
Simha				24	9	51	4	9	53	16	8	55	28	7	57	9	7	59	17	6	61
Kanya				11	11	51	21	10	53	2	10	55	13	9	57	26	8	59	6	8	61
Tulā				6	1	52	9	12	53	18	11	55	29	10	57	11	10	59	21	9	61
Vṛścika				16	8	52	28	1	54	3	1	56	13	12	57	24	11	59	4	11	61
Dhanus				2	10	52	27	3	54	18	2	56	25	1	58	5	1	60	15	12	61
Makara				13	11	52	10	10	54	4	4	56	8	3	58	14	2	60	24	1	62
Kumbha	14	1	51	22	12	52	24	11	54	22	5	56	17	4	58	24	3	60			
"										18	8	56									
Mina	21	2	51	30	1	53	5	1	55	3	8	56	28	5	58	2	5	60			
"										21	11	56									

JUPITER

Enters :—

Mīna	on	Mar.	23,	1951
Meṣa	,,	Mar.	31,	1952
Vṛṣa	,,	Apr.	9,	1953
Mithuna	,,	Aug.	30	1953
Vṛṣa R	,,	Nov.	30,	1953
Mithuna	,,	Apr.	19.	1954
Karkaṭa	,,	Sept.	9,	1954
Mithuna R	,,	Jan.	28,	1955
Karkata	,,	May	3,	1955
Siṁha	,	Oct.	1,	1955
Karkaṭa R	,,	Mar.	14,	1956
Siṁha	,,	May	22,	1956

Enters :—

Kanyā	on	Oct.	28,	1956
Siṁha R	,,	Apr.	18,	1957
Kanyā	,,	June	19,	,,
Tulā	,,	Nov.	28,	,,
Kanyā R	,,	May	17,	1958
Tulā	,,	July	21,	,,
Vṛścika	,,	Dec.	28,	,,
Tulā R	,,	June	22,	1959
Vṛścika	,,	Aug.	17,	,,
Dhanus	,,	Jan.	22,	1960
Makara	,,	Feb.	10,	1961
Kumbha	,,	Feb.	24,	1962

SATURN

Enters :—

Tulā	on	Nov.	25,	1952
Kanyā R	,,	Apr.	24,	1953
Tulā	,,	Aug.	21,	1953
Vṛścika	,,	Nov.	12,	1955
Dhanus	,,	Feb.	8,	1958

Enters :—

Vṛścika R	on	June	2,	1958
Dhanus	,,	Nov.	7,	1958
Makara	,,	Feb.	1,	1961
Dhanus R	,,	Sept.	17,	1961
Makara	,,	Oct.	7,	1961

URANUS

Enters :—

Karkata	on	July	14,	1954
Siṁha	on	Sept.	14,	1960

Enters :—

Karkaṭa R	on	Feb.	23,	1961
Siṁha	,,	July	1,	1961

NEPTUNE

Enters :—

Tulā	on	Dec.	6,	1952
Kanyā R	,,	Mar.	17,	1953

Enters :

Tulā	on	Oct.	6,	1953

PLUTO

Enters :—

Siṁha	on	Nov.	13,	1952
Karkaṭa R	,,	Dec.	5,	1952
Siṁha	,,	Aug.	23,	1953

Enters :—

Karkata R	on	Mar.	7,	1954
Siṁha	,,	June	29,	1954

RAHU (True)

Enters :—

Makara	on	June	15,	1952
Dhanus	,,	Feb.	28,	1954
Vṛścika	,,	Sept.	3,	1955
Tulā	,,	Mar.	7,	1957

Enters :—

Kanyā	on	Aug.	27,	1958
Siṁha	,,	May	8,	1960
Karkaṭa	,,	Nov.	9,	1961

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LUNAR ECLIPSES

(The timings are given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality begins		Totality ends		Eclipse ends		Visibility in India
	h	m	h	m	h	m	h	m	h	m	
1951 —	—		—		—		—		—		—
1952 Feb. 11P	6	09	5	33	—		—		6	45	Visible
" Aug. 5P	25	17	24	03	—		—		26	31	"
1953 Jan. 30T	5	17	3	24	4	35	6	00	7	10	"
" July 26T	17	51	16	03	17	00	18	41	19	39	"
1954 Jan. 19T	8	02	6	20	7	48	8	16	9	43	"
" July 16P	5	50	4	40	—		—		7	01	"
1955 Nov. 29P	22	29	21	51	—		—		23	07	"
1956 May 24P	21	01	19	19	—		—		22	44	"
" Nov. 18T	12	18	10	33	11	38	12	57	14	03	Invisible
1957 May 14T	4	01	2	15	3	22	4	40	5	47	Visible
" Nov. 7T	19	57	18	13	19	42	20	12	21	40	"
1958 May 3P	17	43	17	30	—		—		17	56	"
1959 Mar. 24P	25	41	24	46	—		—		26	37	"
1960 Mar. 13T	13	58	12	08	13	10	14	45	15	48	Invisible
" Sept. 5T	16	51	15	06	16	08	17	35	18	37	Visible
1961 Mar. 2P	18	58	17	21	—		—		20	35	"
" Aug. 26P	8	38	7	05	—		—		10	12	Invisible

T = Total lunar eclipse P = Partial lunar eclipse

SOLAR ECLIPSES

(Given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality or Annu. begins		Totality or Annu. ends		Eclipse ends		Visibility in India
	h	m	h	m	h	m	h	m	h	m	
1951 Mar. 7 R	26	23	23	34	24	36	28	10	29	13	Invisible
" Sept. 1 R	18	21	15	25	16	29	20	14	21	18	"
1952 Feb. 25 T	15	06	12	08	13	09	16	13	17	14	Visible
" Aug. 20 R	21	18	17	52	19	09	22	17	23	34	Invisible
1953 Feb. 14 P	6	29	4	42	—		—		8	16	Partly visible
" July 11 P	8	14	7	07	—		—		9	20	Invisible
" Aug. 9 P	21	25	19	52	—		—		22	56	"
1954 Jan. 5 R	8	02	5	44	7	19	8	44	10	19	"
" June 30 T	18	02	15	31	16	37	19	27	20	33	Visible
" Dec. 25 R	13	06	10	05	11	10	15	02	16	07	Invisible
1955 June 20 T	9	41	7	03	7	58	11	22	12	17	Visible
" Dec. 14 R	12	34	9	31	10	44	14	20	15	33	"
1956 June 8 T	26	51	24	41	26	04	27	36	28	59	Invisible
" Dec. 2 P	13	30	11	22	—		—		15	39	Visible
1957 Apr. 30 R	5	35	3	20	5	21	5	48	7	49	"
" Oct. 23 T	10	23	8	21	10	20	10	27	12	26	Invisible
1958 Apr. 19 R	9	05	5	54	7	03	10	50	11	59	Visible
" Oct. 12 T	26	34	23	50	24	47	28	03	29	00	Invisible
1959 Apr. 8 R	8	37	5	57	7	09	10	38	11	50	"
" Oct. 2 T	17	42	15	19	16	20	19	33	20	34	Visible
1960 Mar. 27 P	12	55	10	58	—		—		14	51	Invisible
" Sept. 21 P	4	29	2	39	—		—		6	20	"
1961 Feb. 15 T	14	13	11	39	13	01	14	37	16	00	Visible
" Aug. 11 R	16	39	13	43	15	22	17	10	18	29	Invisible

T = Total solar eclipse R = Annular solar eclipse P = Partial solar eclipse

Motion of planets

Movement of the Sun and planets (except Mercury) from 5-30 a.m. of the preceding given date up to the desired moment can be found from the following table according to the motion for 2 days obtained from the ephemeris

Day and Time (I.S.T.)		Motion for 2 days								
		10′	20′	30′	40′	50′	1°-00′	1°-30′	2°-00′	2°-30′
		′	′	′	′	′	° ′	° ′	° ′	° ′
Given date	5-30 a.m.	0	0	0	0	0	0 00	0 00	0 00	0 00
" "	11-30 a.m.	1	2	4	5	6	0 08	0 12	0 15	0 19
" "	5-30 p.m.	3	5	8	10	12	0 15	0 23	0 30	0 38
" "	11-30 p.m.	4	7	11	15	19	0 23	0 34	0 45	0 56
2nd day	5-30 a.m.	5	10	15	20	25	0 30	0 45	1 00	1 15
" "	11-30 a.m.	6	12	19	25	31	0 38	0 57	1 15	1 34
" "	5-30 p.m.	8	15	23	30	38	0 45	1 08	1 30	1 53
" "	11-30 p.m.	9	17	26	35	44	0 53	1 19	1 45	2 11
3rd day	5-30 a.m.	10	20	30	40	50	1 00	1 30	2 00	2 30
Motion for 3 hrs.		1	1	2	2	3	4	6	7	10

Motion of Moon

Movement of the Moon up to the desired moment from 5-30 A.M. of the given date can be found according to its daily motion obtained from the ephemeris

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0′	15° 30′
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
5 30 a.m.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 56
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 a.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 p.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 4
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 p.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 a.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 a.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Rahu, Uranus, Neptune and Pluto

Motion for 30 days distributed

Day	20′	40′	1° – 0′	1° – 30′	1° – 35′	1° – 40′	2° – 0′	2° – 30′	3° – 0′	3° – 30′
2	1′	3′	4′	6′	6′	7′	8′	10′	12′	14′
4	3	5	8	12	13	13	16	20	24	28
6	4	8	12	18	19	20	24	30	36	42
8	5	11	16	24	25	27	32	40	48	56
10	7	13	20	30	32	33	40	50	1 – 0	1 – 10
15	10	20	30	45	48	50	1 – 0	1 – 15	1 – 30	1 – 45
20	13	27	40	1 – 0	1 – 3	1 – 7	1 – 20	1 – 40	2 – 0	2 – 20
25	17	33	50	1 – 15	1 – 19	1 – 23	1 – 40	2 – 5	2 – 30	2 – 55
30	20	40	60	1 – 30	1 – 35	1 – 40	2 – 0	2 – 30	3 – 0	3 – 30

Longitudes of Planets at the given time

The longitudes of planets (including Sun and Moon) required for any given moment can be calculated from those provided in the ephemeris for the two epochs one preceding and the other following the given moment, by utilising the motion for 2 days (one day in case of Mercury and also of Moon) obtained from the ephemeris by subtraction. In the calculation, the tables given on the previous page may be used, or to be more accurate, the two logarithmic tables given at the end of the book may be utilised.

For the longitude of the Moon (and also of Mercury) the logarithmic calculation is to be done with the help of Table I alone but for other planets both Tables I and II will have to be used. Example for finding the moon's longitude by Prop. Logarithm has been given at the bottom of Table I on page 97. The use of the table in case of other planets is illustrated below.

Example I—Find the long. of Sun on Aug. 16, 1957 at 0*h*30*m* A.M. (i.e. after midnight of Aug. 15). Long. of Sun on Aug. 15, 1957, 5-30 A.M. $= 3^{s}\ 28^{\circ}\ 37'$; motion in next two days 1° 56′, its log from Table I – 1·0939. Aug. 16th is the Second day. So from Table II under Second day and against the given time 0-30 A.M., the log is found to be ·4025. The sum of these two logarithms is 1·4964, which is the logarithm of 0°46′ nearly (from Table I). Hence the required longitude of Sun is $3^{s}28^{\circ}37' + 0^{\circ}46' = 3^{s}29^{\circ}23'$. In the same way the longitudes of Saturn, Jupiter, Mars and Venus can be obtained.

Example II—For Mercury the calculation is slightly different. For example let us find the long. of Mercury on Aug. 16, 1957; at 3-0 P.M. The longitude has been given for Aug. 16 ($= 4^{s}26^{\circ}48'$) and for Aug. 17 ($= 4^{s}\ 27^{\circ}\ 36'$). Hence the daily motion $= 0^{\circ}\ 48'$; its log is 1·4771 (Table I). Aug. 16th is the same day. From Table II log same day 3-0 P.M. = ·4025. Sum of these two is 1·8796, which is the log of 0°19′ (Table I). Hence the required long. of Mercury is $4^{s}\ 26^{\circ}\ 48' + 0^{\circ}19' = 4^{s}27^{\circ}7'$.

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon			Krittikādi Daśā				Ardrādi Daśā			
	s	°	′		y	m	d		y	m	d
1 Aśvinī	0	0	0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0	13	20		5	3	0		3	0	0
3 Kṛttikā	0	26	40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1	10	0		4	0	0		14	0	0
5 Mṛgaśiras	1	23	20		2	0	0		7	0	0
6 Ārdrā	2	6	40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2	20	0		11	3	0		4	6	0
8 Puṣya	3	3	20		7	6	0		3	0	0
9 Āśleṣā	3	16	40		3	9	0		1	6	0
10 Maghā	4	0	0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4	13	20		5	4	0		10	0	0
12 U. Phalguni	4	26	40		2	8	0		5	0	0
13 Hasta	5	10	0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5	23	20		12	9	0		6	0	0
15 Svātī	6	6	40		8	6	0		4	0	0
16 Viśākhā	6	20	0		4	3	0		2	0	0
17 Anurādha	7	3	20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7	16	40		6	8	0		11	4	0
19 Mūla	8	0	0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8	13	20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8	26	40		12	8	0		6	8	0
22 Sravaṇa	9	10	0		6	4	0		3	4	0
23 Dhaniṣṭhā	9	23	20	Rahu	12	0	0	Jupiter	19	0	0
24 Satabhiṣaj	10	6	40		8	0	0		12	8	0
25 P. Bhadrapada	10	20	0		4	0	0		6	4	0
26 U. Bhādrapadā	11	3	20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11	16	40		15	9	0		9	0	0
1 Asvinī	12	0	0		10	6	0		6	0	0

Proportional Parts for Dasa of Planets

(To be subtracted from the balance of dasa given above)

Long. of Moon	Sun (6y)		Moon (15y)		Mars (8y)		Mercury (17y)		Saturn (10y)		Jupiter (19y)		Rahu (12y)		Venus (21y)	
Krittikadi	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0° 10′	0	9·0	0	16·9	0	12·0	0	19·1	0	15·0	0	28·5	0	18·0	0	23·6
1 0	1	24·0	3	11·3	2	12·0	3	24·6	3	0·0	5	21·0	3	18·0	4	21·8
1 20	2	12·0	4	15·0	3	6·0	5	3·0	4	0·0	7	18·0	4	24·0	6	9·0
4 0	7	6·0	13	15·0	9	18·0	15	9·0	12	0·0	22	24·0	14	12·0	18	27·0
13 20	24	0·0	45	0·0	32	0·0	51	0·0	40	0·0	76	0·0	48	0·0	63	0·0
Nakshatras	3, 4, 5		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2	
Ardradi	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0° 10′	0	6·8	0	22·5	0	9·0	0	25·5	0	15·0	0	28.5	0	13.5	1	1·5
1 0	1	10·5	4	15·0	1	24·0	5	3·0	3	0·0	5	21.0	2	21.0	6	9·0
1 20	1	24·0	6	0·0	2	12·0	6	24·0	4	0·0	7	18·0	3	18.0	8	12·0
4 0	5	12·0	18	0·0	7	6·0	20	12·0	12	0·0	22	24·0	10	24.0	25	6·0
13 20	18	0·0	60	0·0	24	0·0	68	0·0	40	0·0	76	0·0	36	0.0	84	0·0
Nakshatras	6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2		3,4,5	

ASTOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—15						Mars (Mangala)—8							
	Sub Periods			Total			Sub Periods			Total			Sub Periods				Total			
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	h	y	m	d	h
Sun	0	4	0	0	4	0		—			—				—			—		
Moon	0	10	0	1	2	0	2	1	0	2	1	0			—			—		
Mars	0	5	10	1	7	10	1	1	10	3	2	10	0	7	3	8	0	7	3	8
Mercury	0	11	10	2	6	20	2	4	10	5	6	20	1	3	3	8	1	10	6	16
Saturn	0	6	20	3	1	10	1	4	20	6	11	10	0	8	26	16	2	7	3	8
Jupiter	1	0	20	4	2	0	2	7	20	9	7	0	1	4	26	16	4	0	0	0
Rahu	0	8	0	4	10	0	1	8	0	11	3	0	0	10	20	0	4	10	20	0
Venus	1	2	0	6	0	0	2	11	0	14	2	0	1	6	20	0	6	5	10	0
Sun		—			—		0	10	0	15	0	0	0	5	10	0	6	10	20	00
Moon		—			—			—			—		1	1	10	0	8	0	0	0

DASA

Antardaśā	Mercury (Budha)—17								Saturn (Sani)—10							
	Sub Periods				Total				Sub Periods				Total			
	y	m	d	h	y	m	d	h	y	m	d	h	y	m	d	h
Mercury	2	8	3	8	2	8	3	8		—				—		
Saturn	1	6	26	16	4	3	0	0	0	11	3	8	0	11	3	8
Jupiter	2	11	26	16	7	2	26	16	1	9	3	8	2	8	6	16
Rahu	1	10	20	0	9	1	16	16	1	1	10	0	3	9	16	16
Venus	3	3	20	0	12	5	6	16	1	11	10	0	5	8	26	16
Sun	0	11	10	0	13	4	16	16	0	6	20	0	6	3	16	16
Moon	2	4	10	0	15	8	26	16	1	4	20	0	7	8	6	16
Mars	1	3	3	8	17	0	0	0	0	8	26	16	8	5	3	8
Mercury		—				—			1	6	26	16	10	0	0	0

DASA

Antardaśā	Jupiter (Brihaspati)—19								Rahu—12						Venus (Sukra)—21					
	Sub Periods				Total				Sub Periods			Total			Sub Periods			Total		
	y	m	d	h	y	m	d	h	y	m	d	y	m	d	y	m	d	y	m	d
Jupiter	3	4	3	8	3	4	3	8		—			—			—			—	
Rahu	2	1	10	0	5	5	13	8	1	4	0	1	4	0		—			—	
Venus	3	8	10	0	9	1	23	8	2	4	0	3	8	0	4	1	0	4	1	0
Sun	1	0	20	0	10	2	13	8	0	8	0	4	4	0	1	2	0	5	3	0
Moon	2	7	20	0	12	10	3	8	1	8	0	6	0	0	2	11	0	8	2	0
Mars	1	4	26	16	14	3	0	0	0	10	20	6	10	20	1	6	20	9	8	20
Mercury.	2	11	26	16	17	2	26	16	1	10	20	8	9	10	3	3	20	13	0	10
Saturn	1	9	3	8	19	0	0	0	1	1	10	9	10	20	1	11	10	14	11	20
Jupiter		—				—			2	1	10	12	0	0	3	8	10	18	8	0
Rahu		—				—				—			—		2	4	0	21	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon		*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
°	′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
0	0	Ketu	7	0	0	SUN	4	6	0	MARS	3	6	0	JUPITER	4	0	0
0	20		6	9	27		4	4	6		3	3	27		3	7	6
0	40		6	7	24		4	2	12		3	1	24		3	2	12
1	0		6	5	21		4	0	18		2	11	21		2	9	18
1	20		6	3	18		3	10	24		2	9	18		2	4	24
1	40		6	1	15		3	9	0		2	7	15		2	0	0
2	0		5	11	12		3	7	6		2	5	12		1	7	6
2	20		5	9	9		3	5	12		2	3	9		1	2	12
2	40		5	7	6		3	3	18		2	1	6		0	9	18
3	0		5	5	3		3	1	24		1	11	3		0	4	24
8	20		5	3	0		3	0	0		1	9	0	Saturn	19	0	0
3	40		5	0	27		2	10	6		1	6	27		18	6	9
4	0		4	10	24		2	8	12		1	4	24		18	0	18
4	20		4	8	21		2	6	18		1	2	21		17	6	27
4	40		4	6	18		2	4	24		1	0	18		17	1	6
5	0		4	4	15		2	3	0		0	10	15		16	7	15
5	20		4	2	12		2	1	6		0	8	12		16	1	24
5	40		4	0	9		1	11	12		0	6	9		15	8	3
6	0		3	10	6		1	9	18		0	4	6		15	2	12
6	20		3	8	3		1	7	24		0	2	3		14	8	21
6	40		3	6	0		1	6	0	Rahu	18	0	0		14	3	0
7	0		3	3	27		1	4	6		17	6	18		13	9	9
7	20		3	1	24		1	2	12		17	1	6		13	3	18
7	40		2	11	21		1	0	18		16	7	24		12	9	27
8	0		2	9	18		0	10	24		16	2	12		12	4	6
8	20		2.	7	15		0	9	0		15	9	0		11	10	15
8	40		2	5	12		0	7	6		15	3	18		11	4	24
9	0		2	3	9		0	5	12		14	10	6		10	11	3
9	20		2	1	6		0	3	18		14	4	24		10	5	12
9	40		1	11	3		0	1	24		13	11	12		9	11	21
10	0		1	9	0	Moon	10	0	0		13	6	0		9	6	0
10	20		1	6	27		9	9	0		13	0	18		9	0	9
10	40		1	4	24		9	6	0		12	7	6		8	6	18
11	0		1	2	21		9	3	0		12	1	24		8	0	27
11	20		1	0	18		9	0	0		11	8	12		7	7	6
11	40		0	10	15		8	9	0		11	3	0		7	1	15
12	0		0	8	12		8	6	0		10	9	18		6	7	24
12	20		0	6	9		8	3	0		10	4	6		6	2	8
12	40		0	4	6		8	0	0		9	10	24		5	8	12
13	0		0	2	3		7	9	0		9	5	12		5	2	21
15	20	Venus	20	0	0		7	6	0		9	0	0		4	9	0
13	40		19	6	0		7	3	0		8	6	18		4	3	9
14	0		19	0	0		7	0	0		8	1	6		3	9	18
14	20		18	6	0		6	9	0		7	7	24		3	3	27
14	40		18	0	0		6	6	0		7	2	12		2	10	6
15	0		17	6	0		6	3	0		6	9	0		2	4	15
15	20		17	0	0		6	0	0		6	3	18		1	10	24
15	40		16	6	0		5	9	0		5	10	6		1	5	3
16	0		16	0	0		5	6	0		5	4	24		0	11	12
16	20		15	6	0		5	3	0		4	11	12		0	5	21
16	40		15	0	0		5	0	0		4	6	0	Mercur.	17	0	0
17	0		14	6	0		4	9	0		4	0	18		16	6	27
17	20		14	0	0		4	6	0		3	7	6		16	1	24
17	40		13	6	0		4	3	0		3	1	24		15	8	21
18	0		13	0	0		4	0	0		2	8	12		15	3	18
18	20		12	6	0		3	9	0		2	3	0		14	10	15
18	40		12	0	0		3	6	0		1	9	18		14	5	12
19	0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimsottari Dasa—contd.

Long. of Moon		*Moon in* Meṣa, Siṃha, Dhanus				*Moon in* Vṛṣa, Kanyā, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkaṭa Vṛścika, Mina			
°	′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
19	0	VENUS	11	6	0	MOON	3	3	0	RAHU	1	4	6	MERC.	14	0	9
19	20		11	0	0		3	0	0		0	10	24		13	7	6
19	40		10	6	0		2	9	0		0	5	12		13	2	3
20	0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20	20		9	6	0		2	3	0		15	7	6		12	3	27
20	40		9	0	0		2	0	0		15	2	12		11	10	24
21	0		8	6	0		1	9	0		14	9	18		11	5	21
21	20		8	0	0		1	6	0		14	4	24		11	0	18
21	40		7	6	0		1	3	0		14	0	0		10	7	15
22	0		7	0	0		1	0	0		13	7	6		10	2	12
22	20		6	6	0		0	9	0		13	2	12		9	9	9
22	40		6	0	0		0	6	0		12	9	18		9	4	6
23	0		5	6	0		0	3	0		12	4	24		8	11	3
2	20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23	40		4	6	0		6	9	27		11	7	6		8	0	27
24	0		4	0	0		6	7	24		11	2	12		7	7	24
24	20		3	6	0		6	5	21		10	9	18		7	2	21
24	40		3	0	0		6	3	18		10	4	24		6	9	18
25	0		2	6	0		6	1	15		10	0	0		6	4	15
25	20		2	0	0		5	11	12		9	7	6		5	11	12
25	40		1	6	0		5	9	9		9	2	12		5	6	9
26	0		1	0	0		5	7	6		8	9	18		5	1	6
26	20		0	6	0		5	5	3		8	4	24		4	8	3
26	40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27	0		5	10	6		5	0	27		7	7	6		3	9	27
27	20		5	8	12		4	10	24		7	2	12		3	4	24
27	40		5	6	18		4	8	21		6	9	18		2	11	21
28	0		5	4	24		4	6	18		6	4	24		2	6	18
28	20		5	3	0		4	4	15		6	0	0		2	1	15
28	40		5	1	6		4	2	12		5	7	6		1	8	12
29	0		4	11	12		4	0	9		5	2	12		1	3	9
29	20		4	9	18		3	10	6		4	9	18		0	10	6
29	40		4	7	24		3	8	3		4	4	24		0	5	3
30	0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7*y*)		Venus (20*y*)		Sun (6*y*)		Moon (10*y*)		Mars (7*y*)		Rāhu (18*y*)		Jupiter (16*y*)		Saturn (19*y*)		Merc. (17*y*)		
′	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

VIMSOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6		Moon (Chandra)—10		Mars (Mangala)—7	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Sun	0 3 18	0 3 18	—	—	—	—
Moon	0 6 0	0 9 18	0 10 0	0 10 0	—	—
Mars	0 4 6	1 1 24	0 7 0	1 5 0	0 4 27	0 4 27
Rahu	0 10 24	2 0 18	1 6 0	2 11 0	1 0 18	1 5 15
Jupiter	0 9 18	2 10 6	1 4 0	4 3 0	0 11 6	2 4 21
Saturn	0 11 12	3 9 18	1 7 0	5 10 0	1 1 9	3 6 0
Mercury	0 10 6	4 7 24	1 5 0	7 3 0	0 11 27	4 5 27
Ketu	0 4 6	5 0 0	0 7 0	7 10 0	0 4 27	4 10 24
Venus	1 0 0	6 0 0	1 8 0	9 6 0	1 2 0	6 0 24
Sun	—	—	0 6 0	10 0 0	0 4 6	6 5 0
Moon	—	—	—	—	0 7 0	7 0 0

DASA

Antardaśā	Rahu—18		Jupiter (Brihaspati)—16		Saturn (Sani)—19	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Rahu	2 8 12	2 8 12	—	—	—	—
Jupiter	2 4 24	5 1 6	2 1 18	2 1 18	—	—
Saturn	2 10 6	7 11 12	2 6 12	4 8 0	3 0 3	3 0 3
Mercury	2 6 18	10 6 0	2 3 6	6 11 6	2 8 9	5 8 12
Ketu	1 0 18	11 6 18	0 11 6	7 10 12	1 1 9	6 9 21
Venus	3 0 0	14 6 18	2 8 0	10 6 12	3 2 0	9 11 21
Sun	0 10 24	15 5 12	0 9 18	11 4 0	0 11 12	10 11 3
Moon	1 6 0	16 11 12	1 4 0	12 8 0	1 7 0	12 6 3
Mars	1 0 18	18 0 0	0 11 6	13 7 6	1 1 9	13 7 12
Rahu	—	—	2 4 24	16 0 0	2 10 6	16 5 18
Jupiter	—	—	—	—	2 6 12	19 0 0

DASA

Antardaśā	Mercury (Budha)—17		Ketu—7		Venus (Sukra)—20	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Mercury	2 4 27	2 4 27	—	—	—	—
Ketu	0 11 27	3 4 24	0 4 27	0 4 27	—	—
Venus	2 10 0	6 2 24	1 2 0	1 6 27	3 4 0	3 4 0
Sun	0 10 6	7 1 0	0 4 6	1 11 3	1 0 0	4 4 0
Moon	1 5 0	8 6 0	0 7 0	2 6 3	1 8 0	6 0 0
Mars	0 11 27	9 5 27	0 4 27	2 11 0	1 2 0	7 2 0
Rahu	2 6 18	12 0 15	1 0 18	3 11 18	3 0 0	10 2 0
Jupiter	2 3 6	14 3 21	0 11 6	4 10 24	2 8 0	12 10 0
Saturn	2 8 9	17 0 0	1 1 9	6 0 3	3 2 0	16 0 0
Mercury	—	—	0 11 27	7 0 0	2 10 0	18 10 0
Ketu	—	—	—	—	1 2 0	20 0 0

Navamsa Signs and their Lords

NAVAMSAS

Sign	1st 0° 0′ to 3°20′	2nd 3°20′ to 6°40′	3rd 6°40′ to 10°0′	4th 10°0′ to 13°20′	5th 13°20′ to 16°40′	6th 16°40′ to 20°0′	7th 20°0′ to 23°20′	8th 23°20′ to 26°40′	9th 26°40′ to 30° 0
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vrischika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Rasi) of Mesha etc. The Lords of the navamsa signs are indicated by the planetary symbols.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakṣatra	Long.	Vimśottarī Daśā		Nakṣatra	Long.	Vimśottarī Daśā	
	s ° ′		yrs.		s ° ′		yrs.
1 Aśvinī	0 0 0	Ketu	7	15 Svātī	6 6 40	Rāhu	18
2 Bharaṇī	0 13 20	Venus	20	16 Viśākhā	6 20 0	Jupiter	16
3 Kṛttikā	0 26 40	Sun	6	17 Anurādhā	7 3 20	Saturn	19
4 Rohiṇī	1 10 0	Moon	10	18 Jyeṣṭhā	7 16 40	Mercury	17
5 Mṛgaśiras	1 23 20	Mars	7	19 Mūla	8 0 0	Ketu	7
6 Ārdrā	2 6 40	Rāhu	18	20 Pūrvāṣāḍhā	8 13 20	Venus	20
7 Punarvasu	2 20 0	Jupiter	16	21 Uttarāṣāḍhā	8 26 40	Sun	6
8 Puṣya	3 3 20	Saturn	19	22 Śravaṇa	9 10 0	Moon	10
9 Āśleṣā	3 16 40	Mercury	17	23 Dhaniṣṭhā	9 23 20	Mars	7
10 Maghā	4 0 0	Ketu	7	24 Śatabhisaj	10 6 40	Rāhu	18
11 P. Phalgunī	4 13 20	Venus	20	25 P.Bhādrapad	10 20 0	Jupiter	16
12 U. Phalgunī	4 26 40	Sun	6	26 U.Bhādrapad	11 3 20	Saturn	19
13 Hasta	5 10 0	Moon	10	27 Revatī	11 16 40	Mercury	17
14 Citrā	5 23 20	Mars	7	1 Aśvinī	12 0 0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

SUNRISE AND SUNSET

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the Indian Ephemeris and deduct it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is almost the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs., 8yrs., 12yrs., etc., and again after 21yrs., 25yrs. 29yrs., 33yrs., 37yrs., 41yrs., 45yrs.

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Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T.+11m)		Mad. Bang. 13° N 0′ (+9, +20m)		Bombay 18° N 58′ (+39m)		Allahabad 25° N 28′ (+3m)		Delhi 28° N 39′ (+21m)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
January 1	6 15	5 51	6 26	5 41	6 37	5 30	6 50	5 17	6 57	5 11
5	17	53	27	43	38	32	51	19	57	14
9	18	56	29	45	39	35	52	22	58	17
13	20	5 58	29	48	39	38	52	25	58	20
17	21	6 0	30	50	40	40	52	28	58	23
21	21	1	31	52	40	43	51	31	57	26
25	22	3	31	54	40	45	50	34	55	30
29	22	4	30	56	39	47	49	37	54	33
Febry. 2	6 22	6 5	6 30	5 58	6 38	5 50	6 47	5 40	6 52	5 36
6	22	6	29	5 59	36	52	45	43	49	40
10	22	7	28	6 1	35	54	43	46	47	43
14	21	6	27	2	33	56	40	49	43	46
18	20	8	25	3	31	58	37	51	40	49
22	19	9	23	4	28	5 59	34	54	36	51
26	18	9	21	5	25	6 1	30	56	32	54
March 2	6 16	6 9	6 19	6 6	6 23	6 2	6 27	5 58	6 28	5 57
6	14	9	17	6	20	3	23	6 0	24	5 59
10	13	8	14	6	16	5	19	2	20	6 2
14	11	8	12	7	13	6	15	4	15	4
18	9	8	9	7	10	7	11	6	11	6
22	7	7	7	8	7	8	6	8	6	9
26	5	7	4	8	3	9	6 2	10	6 1	11
30	3	6	6 1	8	6 0	10	5 58	11	5 57	13
April 3	6 1	6 6	5 59	6 8	5 57	6 11	5 54	6 13	5 52	6 15
7	5 59	6	56	9	53	11	50	15	48	18
11	57	5	54	9	50	12	46	17	43	20
15	56	5	51	9	47	13	42	19	39	22
19	54	5	49	10	44	14	38	20	35	24
23	52	4	47	10	41	16	35	22	31	27
27	51	4	45	11	39	17	31	24	27	29
May 1	5 50	6 5	5 43	6 11	5 36	6 18	5 28	6 26	5 23	6 31
5	49	5	41	12	34	19	25	28	20	34
9	48	5	40	13	32	21	23	30	17	36
13	47	5	39	14	30	22	20	32	14	39
17	47	6	38	15	29	24	18	34	12	41
21	47	6	37	16	28	25	16	36	10	43
25	46	7	37	17	27	27	15	38	8	46
29	46	8	36	18	26	28	14	40	7	48
June 2	5 46	6 9	5 36	6 19	5 26	6 30	5 13	6 42	5 6	6 50
6	47	10	36	20	26	31	13	44	5	52
10	47	11	37	22	26	33	13	46	5	54
14	48	12	37	23	26	34	13	47	5	55
18	49	13	38	24	27	35	13	48	5	56
22	49	14	39	25	27	36	14	49	6	57
26	50	15	40	25	28	37	15	50	7	58
30	5 51	6 15	5 41	6 26	5 29	6 37	5 16	6 50	5 9	6 58

N.B.—To obtain Indian Standard Time of Sunrise and Sunset, apply to the above the difference between the standard time and the local time of the place. The I. S. T. corrections for the above places are given in brackets.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T. +11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 28′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
July 4	5 52	6 16	5 42	6 26	5 31	6 37	5 18	6 50	5 10	6 58
8	53	16	43	27	32	37	19	50	12	58
12	55	16	44	27	33	37	21	50	14	57
16	55	16	45	27	35	37	23	49	16	56
20	56	16	46	26	36	36	25	48	18	54
24	56	16	47	26	38	35	26	46	20	53
28	57	16	48	25	39	34	28	44	22	50
August 1	5 57	6 15	5 49	6 24	5 40	6 32	5 30	6 42	5 25	6 48
5	57	14	50	22	42	30	32	40	27	45
9	57	13	50	21	43	28	34	37	29	42
13	57	12	51	19	44	26	36	34	31	38
17	57	11	51	17	45	23	38	31	34	34
21	57	9	52	15	46	20	39	27	36	30
25	57	8	52	12	47	17	41	23	38	26
29	56	6	52	10	48	14	43	19	40	22
Septr. 2	5 56	6 4	5 52	6 7	5 49	6 11	5 44	6 15	5 42	6 17
6	55	2	52	5	50	8	46	11	44	13
10	55	6 0	52	6 2	50	4	47	7	46	8
14	54	5 58	52	5 59	51	6 1	49	6 3	48	6 3
18	53	55	52	56	52	5 57	50	5 58	50	5 58
22	53	53	52	53	52	54	52	54	52	54
26	52	51	53	51	53	50	54	50	54	49
30	52	49	53	48	54	47	55	45	56	44
October 4	5 51	5 47	5 53	5 45	5 55	5 43	5 57	5 41	5 58	5 40
8	51	45	53	43	56	40	5 59	37	6 0	35
12	50	43	53	40	57	37	6 0	33	2	31
16	50	41	54	38	58	34	2	29	5	26
20	50	40	54	36	5 59	31	5	25	7	22
24	50	39	55	34	6 0	28	7	22	10	18
28	50	38	56	32	2	26	9	19	13	15
Novr. 1	5 51	5 37	5 57	5 30	6 4	5 24	6 11	5 16	6 15	5 12
5	51	36	5 58	29	5	22	14	13	18	9
9	52	35	6 0	28	7	20	19	11	21	6
13	53	35	1	27	10	19	22	9	25	4
17	54	35	3	27	12	18	25	7	28	2
21	56	36	5	27	14	17	27	6	31	1
25	57	36	7	27	17	17	28	6	34	5 0
29	5 59	37	9	27	19	17	31	5	37	4 59
Decr. 3	6 1	5 38	6 11	5 28	6 21	5 18	6 34	5 5	6 40	4 59
7	3	40	13	29	24	19	37	6	43	5 0
11	5	41	15	31	26	20	40	6	46	0
15	7	43	18	32	29	21	42	7	49	2
19	9	45	20	34	31	23	44	9	51	3
23	11	47	22	36	33	25	46	11	53	5
27	13	49	24	38	35	27	48	13	55	7
31	6 15	5 51	6 25	5 40	6 37	5 29	6 50	5 16	6 56	5 10

Note :—These timings relate to the coincidence (astronomical or true) of the centre of the Sun with the horizon, without any correction for refraction. Correction for visibility of the upper limb : −3*m* for rise, +3*m* for set.

Proportional Logarithms for finding Planets' places—Tab. I

Min.	DEGREES OR HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1·6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1·6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1·6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1·5563	1·1634	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1·5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1·5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1·5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1·5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1·5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1·4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1·4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1·4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1·4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3876	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1.0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Min.	13	14	15	16	17	18	19	20	21	22	23	Min.
	DEGREES OR HOURS											
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2510	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

Example :—Required longitude of moon on 13th April 1961 at 5-22 P.M. I.S.T. Time from 5-30 A.M. (13th) is 11*h*52*m*, log. of which = ·3059. Moon's daily motion is 14°12′, its log = ·2279. Sum of these two = 0·5338 which is log of 7° 1′, the required movement. Hence the required longitude of moon is 11s 0° 12′ + 7° 01′ = 11s 7° 13′, *i.e. Mina* 7° 13′.

Rule :—Add proportional log of planet's daily motion to log of time from 5-30 A.M., I. S. T. and the sum will be the log. of the movement required. Add this movement to the given position of planet, if the time be after 5-30 A.M., but subtract if before, and the result will be the planet's true place at the given moment. (If retrograde subtract for add.)

Prop. Logarithms for finding Planets' Places—Table II

Log. of time interval from the given epoch.

Time (I S.T.)	For all planets except Mercury & Moon			For Mercury & Moon	
	Given date	Second day	Next given date	Given date	Next day
h m					
0 00 A.M.		0·4141	0·0529		0·1130
0 30		·4025	·0478		·1015
1 00		·3912	·0428		·0902
1 30		·3802	·0378		·0792
2 00		·3695	·0329		·0685
2 30		·3590	·0280		·0580
3 00		·3488	·0232		·0478
3 30		·3388	·0185		·0378
4 00		·3291	·0138		·0280
4 30		·3195	·0091		·0185
5 00 A.M.		0·3102	0·0045		0·0091
5 30	∝	·3010	0·0000	∝	0·0000
6 00	1·9823	·2921		1·6812	
6 30	1·6812	·2833		1·3802	
7 00	1·5051	·2747		1·2041	
7 30	1·3802	·2663		1·0792	
8 00	1·2833	·2580		0·9823	
8 30	1·2041	·2499		·9031	
9 00	1·1372	·2419		·8361	
9 30	1·0792	·2341		·7781	
10 00 A.M.	1·0280	0·2264		0·7270	
10 30	0·9823	·2188		·6812	
11 00	·9409	·2114		·6398	
11 30	·9031	·2041		·6021	
12 00 (noon)	·8683	·1969		·5673	
12 30 P.M.	·8361	·1899		·5351	
1 00	·8062	·1829		·5051	
1 30	·7781	·1761		·4771	
2 00	·7518	·1694		·4508	
2 30	·7270	·1627		·4260	
3 00 P.M.	0·7035	0·1562		0·4025	
3 30	·6812	·1498		·3802	
4 00	·6601	·1431		·3590	
4 30	·6398	·1372		·3388	
5 00	·6205	·1310		·3195	
5 30	·6021	·1249		·3010	
6 00	·5843	·1189		·2833	
6 30	·5673	·1130		·2663	
7 00	·5509	·1072		·2499	
7 30	·5351	·1015		·2341	
8 00 P.M.	0·5199	0·0958		0·2188	
8 30	·5051	·0902		·2041	
9 00	·4909	·0846		·1899	
9 30	·4771	·0792		·1761	
10 00	·4638	·0738		·1627	
10 30	·4508	·0685		·1498	
11 00	·4382	·0632		·1372	
11 30	·4260	·0580		·1249	
12 00 (mid-night)	0·4141	0·0529		0·1130	

Rule :—Prop. Log. of time from the above Table II is to be added to log. of planet's 2 days' or 1 day's motion as the case may be from Table I, and the result will be the log. (Tab. I) of planet's required movement up to the moment from the previous given epoch.

Instructions for Erecting a Birth-Chart

At first obtain the date and time of birth and the name of the locality of birth, i.e. the birth place. If the time available be the local mean time of the place which was in vogue all over India before 1st January 1906. the same should be converted into the present I.S.T. by applying properly the local time correction for the place of birth. From 1st September 1947 the use of L.M.T. was completely abandoned and I.S.T. was adopted for all places of India. In some cases the time of birth is supplied in ghati (danda or nadika) and vighati (pala or vinadika). In that case convert ghati, vighati into hours and minutes applying the relation that 24 minutes make one ghati and 24 secs. make one vighati and add the result to the sunrise time, or to the Sunset time when the ghati and vigahati is given from sunset in case of birth in night In this way the birth time is obtained in hours and minutes of the clock. But before that one should be sure, that the sunrise or sunset time available is not in L.M.T. nor in Local apparent time, but in I S T. In the former case obtain the sunrise time for the date and locality in question in I.S.T. by calculation and then obtain the birth time which is then in I.S.T. Conversion of time into L.M.T. and vice-versa into I.S.T. has been discussed in author's TABLES OF ASCENDANTS. Both L.M.T and I.S.T. would be required in the preparation of horoscope, so keep both the times recorded in the working sheet. For the birth place obtain the latitude and longitude measured from Greenwich. If the exact value of these coordinate are not known, then work with those of the nearest city available. The longitude will be utilised in finding the local time of place and the latitude in determining the Lagna or Ascendant.

Many foreign countries keep SUMMER TIME, i.e. they advance their clocks by one hour during summer seasons. In that case the recorded birth time should be reduced by one hour to obtain local standard time of birth. From that obtain also I. S. T. by correction given in Lahiri's Tables of Ascendants or Indian Ephemeris. From the same book calculate the Sidereal Time at birth and obtain the Ascendant or Lagna for the latitude of the place.

Then calculate the longitude of planets. The longitudes are given in Signs (Rasis), degrees and minutes. 60 minutes make one degree and 30 degrees make one rasi. From I.S.T. obtained or derived for the birth time, calculate the longitudes of planet (*grahasphute*). The longitudes are given for 5-30 A.M. I.S.T. If the birth time be exactly 5-30 A.M. or very near to it, then take the given longitudes as those for birth. The method of calculating the longitudes for any hour of I.S.T. has been illustrated in the Example given in the Ephemeris. For this different tables have been given and the use of the log tables has also been illustrated.

Now the planets are to be placed in the birth chart. The first figure in the longitude of a planet indicates the Rasi or Sign. For example if it is zero, place the planet in Mesha or Aries, if 1 place it in Vrisha or Tauras, 2 in Mithuna or Gemini, 3 in Karkata or Cancer and so on. The Ascendant or Lagna will have to be placed in the birth chart in a similar way. This completes casting of the nativity. The *nakshatra* division in which the moon or the planet falls can be ascertaind from the table given for the purpose on page 93. The *tithi* at birth time can be determined from the difference of longitudes of the Moon and Sun utilising the table on p-83. For Yoga add the longitude of Sun to that of Moon and consult the table of nakshatra on page 93 from which the number of Yoga current at birth time would be obtained. Then the balance of dasa is to be calculated. For this take the longitude of Moon and enter the table on page 90 and find the balance of Vimsottari dasa at the time of birth. Then go on adding the period of dasa of subsequent planets to arrive at the present age. The longitude utilised for all the above purposes are the nirayana longitude as given in the Ephemeris. If ayanamsa is added to the nirayana longitude, then the Sayana longitude of the planet will be obtained which are, however, not required in casting of a nativity in the Indian system.

— *FINIS* —

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OF
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ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

PART V

COVERING ELEVEN YEARS

FROM 1961 TO 1971 A.D.

N. C. LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA.

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(Fifth Edition)

BY

NIRMAL CHANDRA LAHIRI, M.A.

Gaṇitācārya, Gaṇitakalānidhi.

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PREFACE

The present Condensed Ephemeris Part V-A covering the years from 1962 to 1966 A.D. is published in order to meet the demand from the public for copies of the Ephemeris for individual years subsequent to 1961, some of which have gone out of print.

The arrangement of this part follows that of Part IV and accordingly the longitudes of planets are given for 5-30 A.M., I.S.T. The longitudes for the years 1875 to 1941 given in Parts I and II of this series of ephemerides are, however, for 5-30 P.M., I.S.T.

The value of ayanāṁśa adopted for the Indian calendar portion of the Indian Ephemeris and Nautical Almanac of the Government of India is less by 5″·8 than the value adopted by me previously. In view of smallness of the difference the revised value has been adopted from 1960 for the sake of uniformity.

ASTRO-RESEARCH BUREAU
CALCUTTA
1st December, 1967

N. C. LAHIRI

Second Edition

The second edition covers eight years from 1962 to 1969 A.D. and has been termed as Part V-B of the series of Condensed Ephemeris.

November 10, 1969

N. C. LAHIRI

Third Edition

This complete edition of Condensed Ephemeris Part V covering as usual the full period of eleven years from 1961 to 1971 A.D. generally follows the arrangement of earlier parts. As regards the additional items given at the end, some rearrangement has been made and a few tables have been amplified and some new items have been added.

February, 1974

N. C. LAHIRI

Fourth Edition

The edition follows the arrangement of the revised Part III. The longitudes have been given at intervals of 2 days instead of their 4 day positions. Those of Moon and Mercury are given daily.

1st November, 1978

N. C. LAHIRI

815078

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Reprinted : July 1982

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LOCAL MEAN TIME OF SUNRISE AND SUNSET

Date	Sunrise					Mid-day	Sunset				
	0°	10°	20°	30°	35°		0°	10°	20°	30°	35°
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
Jan. 0	5 59	6 17	6 35	6 56	7 08	12 03	6 07	5 50	5 31	5 10	4 58
8	6 03	6 19	6 37	6 57	7 09	12 07	6 10	5 54	5 36	5 16	5 05
16	6 06	6 22	6 38	6 57	7 08	12 10	6 14	5 58	5 42	5 23	5 12
24	6 08	6 23	6 38	6 55	7 04	12 12	6 16	6 02	5 47	5 30	5 21
Feb. 1	6 10	6 23	6 36	6 51	6 59	12 14	6 18	6 05	5 52	5 37	5 29
9	6 11	6 21	6 33	6 45	6 53	12 14	6 18	6 07	5 56	5 44	5 36
17	6 11	6 19	6 28	6 38	6 45	12 14	6 18	6 09	6 00	5 50	5 44
25	6 10	6 16	6 23	6 31	6 35	12 13	6 17	6 10	6 03	5 56	5 52
Mar. 5	6 08	6 13	6 17	6 23	6 25	12 12	6 15	6 12	6 07	6 02	5 59
13	6 06	6 09	6 11	6 13	6 14	12 10	6 13	6 11	6 09	6 07	6 06
21	6 04	6 04	6 04	6 03	6 03	12 07	6 11	6 11	6 11	6 12	6 12
29	6 02	5 59	5 57	5 53	5 52	12 05	6 08	6 11	6 14	6 17	6 19
Apr. 6	5 59	5 55	5 50	5 44	5 40	12 03	6 06	6 11	6 16	6 21	6 25
14	5 57	5 50	5 43	5 35	5 30	12 00	6 04	6 11	6 18	6 26	6 31
22	5 55	5 46	5 37	5 26	5 20	11 59	6 02	6 11	6 20	6 31	6 38
30	5 54	5 43	5 32	5 19	5 11	11 57	6 01	6 11	6 23	6 36	6 44
May 8	5 53	5 41	5 27	5 12	5 03	11 56	6 00	6 12	6 26	6 41	6 50
16	5 53	5 39	5 24	5 06	4 56	11 56	6 00	6 14	6 29	6 47	6 57
24	5 53	5 38	5 21	5 02	4 51	11 57	6 00	6 16	6 33	6 52	7 03
June 1	5 51	5 38	5 20	4 59	4 47	11 58	6 01	6 18	6 36	6 56	7 08
9	5 55	5 38	5 20	4 58	4 46	11 59	6 03	6 20	6 39	7 00	7 13
17	5 57	5 39	5 20	4 58	4 45	12 01	6 04	6 22	6 41	7 03	7 16
25	5 59	5 41	5 22	5 00	4 47	12 02	6 06	6 24	6 43	7 05	7 18
July 3	6 01	5 43	5 24	5 03	4 51	12 04	6 08	6 25	6 43	7 05	7 18
11	6 03	5 45	5 27	5 06	4 54	12 05	6 09	6 25	6 43	7 04	7 16
19	6 03	5 47	5 30	5 11	4 59	12 06	6 10	6 25	6 42	7 01	7 13
27	6 03	5 48	5 33	5 15	5 05	12 06	6 10	6 24	6 39	6 57	7 07
Aug. 4	6 02	5 50	5 36	5 20	5 11	12 06	6 09	6 22	6 36	6 51	7 00
12	6 02	5 51	5 39	5 25	5 17	12 05	6 08	6 19	6 31	6 44	6 52
20	6 00	5 51	5 41	5 30	5 23	12 03	6 07	6 16	6 25	6 36	6 43
28	5 58	5 51	5 43	5 34	5 29	12 01	6 05	6 12	6 19	6 28	6 33
Sept. 5	5 56	5 50	5 45	5 39	5 35	11 59	6 02	6 06	6 12	6 18	6 22
13	5 53	5 50	5 47	5 43	5 41	11 56	5 59	6 01	6 04	6 08	6 10
21	5 50	5 49	5 48	5 47	5 47	11 53	5 56	5 57	5 58	5 59	5 59
29	5 47	5 49	5 50	5 52	5 53	11 51	5 54	5 52	5 50	5 49	5 48
Oct. 7	5 45	5 48	5 52	5 56	5 59	11 48	5 51	5 47	5 43	5 39	5 36
15	5 43	5 48	5 54	6 01	6 05	11 46	5 49	5 43	5 37	5 30	5 26
23	5 41	5 49	5 58	6 07	6 12	11 44	5 48	5 40	5 31	5 22	5 16
31	5 40	5 50	6 01	6 13	6 20	11 44	5 47	5 37	5 26	5 14	5 07
Nov. 8	5 40	5 52	6 05	6 19	6 27	11 44	5 47	5 35	5 23	5 08	5 00
16	5 41	5 55	6 09	6 26	6 35	11 45	5 48	5 35	5 20	5 04	4 54
24	5 43	5 58	6 14	6 32	6 43	11 47	5 50	5 35	5 19	5 01	4 50
Dec. 2	5 46	6 02	6 19	6 39	6 50	11 49	5 53	5 37	5 20	5 00	4 48
10	5 49	6 06	6 24	6 45	6 57	11 53	5 56	5 39	5 21	5 01	4 49
18	5 53	6 10	6 29	6 50	7 02	11 56	6 00	5 43	5 24	5 03	4 51
26	5 57	6 14	6 33	6 54	7 06	12 00	6 04	5 47	5 28	5 07	4 55
Jan. 3	6 01	6 18	6 36	6 56	7 08	12 04	6 08	5 51	5 33	5 12	5 00

The timings relate to the visibility of the upper limb of the Sun on the horizon, and as such include refraction and limb-corretion amounting to a total of about 3½ mins. (3 mins. for 0° or 10° lat. and 4 mins. for 30° or 35° lat.) For this reason the above times have been obtained by *diminishing* the calculated figures by the above amount for sunrise and *increasing* for sunset.

The L. M. T. of rise and set for intermediate latitudes and dates may be obtained by simple proportion Thereafter the timings can be converted into I.S.T. by inverse application of the local time correction for the place.

Example of a Foreign City

Date : 20th October 1970, Tuesday.
Time : 10-30 a.m. Local Standard Time.
Place : Bangkok (Thailand).
Lat. 13° 44′ N. Long. 100° 30′ E.

As the place is in Thailand, it falls in the Time Zone of $+7h$ which is the standard time of the country. G.M.T. of the moment is thus less by $7^h\ 0^m$ (i.e. G.M.T. is 10-30 a.m. *minus* 7-0=3-30 a.m. of 20 Oct.) and I.S.T. is less by $1^h\ 30^m$ (i.e. I.S.T. is 10-30 a.m. *minus* 1-30=9-00 a.m. of 20 Oct.).

As the place is in the east of Greenwich, the L.M.T. of the moment is more* than G.M.T. by the time-equivalent of the longitude, i.e. by $6^h\ 42^m$ nearly ($100°\ 30' \times 4 = 402^m\ 0^s = 6h\ 42^m\ 0^s$) Hence the L.M.T. as obtained from G.M.T. is 3-30 a.m. *plus* $6^h\ 42^m$ =10-12 a.m. of 20. 10. 70.

So time is 10-30 a.m. of 20 Oct… ……Thailand Standard Time.
10-12 a.m. „ L.M.T. (for calculation of ascendant)
3-30 a.m. „ „……G.M.T. or U.T.
9-00 a.m. of „ „ ……I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for $12h$ noon L.M.T. of 20 Oct. '70 at Bangkok is h 13-53-03 (p. 76) − 12^s (Corr. for Bangkok) $+10s$ (Corr. for 1970) = h 13-53-01.

∴ Sidereal Time for 10-12 a.m. L.M.T.
= h 13-53-01 − (h 1-48 + 18^s) = h 12-4-43.

Hence the ascendant for Latitude 14°N is obtained from author's Tables of Ascendants as $8^s\ 2°\ 25' - 0°\ 27'$ (Corr. for 1970) = 8^s-1°-58′ i.e., Dhanus 1° 58′. From the short table given on Page 80 of the annual ephemeris, it is seen that the ascendant Dhanus begins on 20 Oct. at 14° N′ latitude at h 10-21 − $17m$ = 10-4 a.m. L.M.T. which confirms the above result.

Planets—To be calculated for 9-00 a.m. I.S.T. of 20.10.70 which moment is h 3-30 after 5-30 a.m. I.S.T. of 20.10.70. The Moon is found for this epoch at $2^s\ 8°\ 41' + 1°\ 49' = 2^s\ 10°\ 30'$ (Mithuna 10° 30′)

Similarly the positions of other planets are also to be obtained for the above hour of I.S.T.

---

*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS
FOR ELEVEN YEARS

FROM 1961 TO 1971 A.D.
" 1882-83 " 1892-93 ŚAKA ERA
" 2017-18 " 2027-28 SAMVAT ERA
" 1367-68 " 1377-78 (B.S.) BENGALI SAN
" 1136-37 " 1146-47 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Saṁvat era.
Samvat era " with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat " with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era " on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5, after which the next year of Fusli begins. Hindi months begin from the date after full moon a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are the same as given in author's Advance Ephemeris.

The beginning dates of Saka, Samvat (two kinds), Bengali and Kollam eras and the Barhaspatya Varsa have been given for each year.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant *0h* U.T. i.e. *0h* G.M.T. Greenwich mean midnight or 5-30 A.M. Indian Standard Time (I.S.T.) or 5-53-30 A.M. Calcutta local time, which is also the same as 4-51-20 A.M. Bombay local time, and 5-20-59 A.M. Madras local time.

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of two days and those of Moon and Mercury have been given for each day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way: Vaiśākha – 1, Jyaiṣṭha – 2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6, Kārtika – 7, Agrahāyana – 8, Pauṣa – 9, Māgha—10, Phālguna – 11 & Chaitra – 12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāṅgas* computed on orthodox methods. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e. mala* or *adhika māsa*.

The *sudi* half of the month begins when the number of the *tithi* is 1, and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi*.

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi and	1	10	Māgha	sudi or sukla.
16	10	Phālguna	,, ,,	1	11	Phālguna	,,
16	11	Chaitra	,, ,,	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	,, ,,	1	1	Vaisākha	,,
16	1	Jyaistha	,, ,,	1	2	Jyaistha	,,
16	2	Asādha	,, ,,	1	3	Asādha	,,
16	3	Srāvana	,, ,,	1	4	Srāvana	,,
16	4	Bhādra	,, ,,	1	5	Bhādra	,,
16	5	Asvina (N.Y.)	,, ,,	1	6	Asvina	,,
16	6	Kārtika	,, ,,	1	7	Kārtika	,, (new year)
16	7	Agrahā.	,, ,,	1	8	Mārga.	,,
16	8	Pāusa	,, ,,	1	9	Pausa	,,

The first figure in the longitude of a planet indicates the sign or *rāsi* of the *nirayana* zodiac, *viz*. 0 means that the planet is in Mesha (Aries), 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc., as shown in the last column of the symbols given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rāsi*.

SYMBOLS

☉—Sun	*Ravi, Sūrya*	
☽—Moon	*Candra*	
☿—Mercury	*Budha*	
♀—Venus	*Śukra, Bhṛgu*	
♂—Mars	*Maṅgala, Kuja*	
♃—Jupiter	*Bṛhaspati, Guru*	
♄—Saturn	*Śani*	
♅—Uranus or Herschel	*Indra, Prajāpati*	
♆—Neptune	*Varuṇa*	
♇—Pluto	*Rudra, Yama*	
☊—Ascending Node or Dragon's head	*Rāhu*	
☋—D. Node, Dragon's tail	*Ketu*	
⊕—Earth	*Pṛthivī*	

♈—Aries	0	*Meṣa*
♉—Taurus	1	*Vṛṣa*
♊—Gemini	2	*Mithuna*
♋—Cancer	3	*Karkaṭa*
♌—Leo	4	*Siṁha*
♍—Virgo	5	*Kanyā*
♎—Libra	6	*Tulā*
♏—Scorpio	7	*Vṛścika*
♐—Sagittarius	8	*Dhanus*
♑—Capricornus	9	*Makara*
♒—Aquarius	10	*Kumbha*
♓—Pisces	11	*Mīna*

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

Standard time=Local time−4 (E. Long.—82° 30′) mins. of time
or =Local time+4 (82° 30′−E. Long.) mins. of time.

Afterwards old Railway time, the same as the local time of Madras (5^h 21^m ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. From 1st Sept. 1947, Indian Standard Time was introduced all over India. Other changes of timings during the war period and afterwards are noted below :—

		Reduction to I.S.T.
In Calcutta ... before 1st Oct., 1941 ...	Calcutta time	—0*h* 23*m*
In whole of Bengal from 1-10-41 to 14-5-42 ...	Bengal time	—1*h* 0*m*
" " " 15-5-42 to 31-8-42 ...	I. S. T.	0*h* 0*m*
" " " 1-9-42 to 31-8-47 ...	Bengal time	—1*h* 0*m*
In West Bengal since 1st September, 1947 ...	I.S.T.	0*h* 0*m*
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45 and Bihar from 12-1-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time (otherwise I.S.T) ...	...	—1*h* 0*m*

East Pakistan observed Bengal time for civil purposes and Pakistan standard
time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51.
From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30*m*
more than I.S.T. and West Pakistan (now Pakistan) standard time is
30*m* less than I.S.T.

1961 A.D. Longitude of Moon CONDENSED

Saka era 1982-83, Samvat 2017-18 (Mar. 17, Nov. 9), B.S 1367-68 (Apr. 14).
Kollam era 1136-37 (Aug. 17), 35 Plava (Mar. 17, Apr. 13).

Date	Beng. Date		*Nirayana* Long. of Moon (স্ব ☽ ট) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	2	6	31	2	18	28	3	0	20	3	12	9	3	23	58	4	5	48	4	17	43
8	24	9	4	29	48	5	12	6	5	24	43	6	7	43	6	21	10	7	5	6	7	19	32
15	1	10	8	4	23	8	19	32	9	4	49	9	20	5	10	5	7	10	19	49	11	4	6
22	8	10	11	17	55	0	1	19	0	14	18	0	26	57	1	9	20	1	21	30	2	3	31
29	15	10	2	15	26	2	27	17	3	9	7	3	20	57	4	2	49	4	14	46	4	26	49
Feb. 5	22	10	5	9	1	5	21	26	6	4	6	6	17	5	7	0	26	7	14	11	7	28	20
12	29	10	8	12	53	8	27	46	9	12	50	9	27	58	10	13	1	10	27	48	11	12	15
19	7	11	11	26	16	0	9	50	0	22	59	1	5	43	1	18	8	2	0	17	2	12	15
26	14	11	2	24	6	3	5	55	3	17	44	3	29	37	4	11	36	4	23	43	5	6	0
Mar. 5	21	11	5	18	27	6	1	8	6	14	2	6	27	11	7	10	36	7	24	17	8	8	16
12	28	11	8	22	31	9	7	0	9	21	40	10	6	25	10	21	9	11	5	46	11	20	7
19	5	12	0	4	9	0	17	47	1	1	0	1	13	50	1	26	19	2	8	31	2	20	30
26	12	12	3	2	21	3	14	10	3	26	0	4	7	56	4	20	3	5	2	21	5	14	54
Apr. 2	19	12	5	27	41	6	10	44	6	24	0	7	7	30	7	21	11	8	5	1	8	19	1
9	26	12	9	3	7	9	17	20	10	1	36	10	15	55	11	0	13	11	14	25	11	28	27
16	3	1	0	12	15	0	25	45	1	8	54	1	21	43	2	4	13	2	16	25	2	28	25
23	10	1	3	10	17	3	22	5	4	3	57	4	15	56	4	28	7	5	10	34	5	23	20
30	17	1	6	6	26	6	19	51	7	3	34	7	17	30	8	1	35	8	15	45	8	29	57
May 7	24	1	9	14	8	9	28	15	10	12	19	10	26	18	11	10	11	11	23	58	0	7	35
14	31	1	0	21	0	1	4	12	1	17	8	1	29	48	2	12	12	2	24	21	3	6	19
21	7	2	3	18	10	3	29	58	4	11	49	4	23	48	5	6	1	5	18	32	6	1	26
28	14	2	6	14	43	6	28	25	7	12	29	7	26	49	8	11	20	8	25	55	9	10	28
June 4	21	2	9	24	54	10	9	9	10	23	12	11	7	2	11	20	40	0	4	7	0	17	22
11	28	2	1	0	25	1	13	15	1	25	54	2	8	19	2	20	32	3	2	35	3	14	28
18	3	3	3	26	17	4	8	4	4	19	54	5	1	52	5	14	4	5	26	35	6	9	29
25	10	3	6	22	50	7	6	38	7	20	52	8	5	28	8	20	18	9	5	15	9	20	10
July 2	17	3	10	4	56	10	19	27	11	3	39	11	17	32	0	1	6	0	14	23	0	27	23
9	24	3	1	10	9	1	22	41	2	5	3	2	17	13	2	29	15	3	11	10	3	22	59
16	31	3	4	4	46	4	16	33	4	28	24	5	10	23	5	22	34	6	5	3	6	17	55
23	7	4	7	1	11	7	14	56	7	29	8	8	13	45	8	28	42	9	13	50	9	29	0
30	14	4	10	14	3	10	28	51	11	13	18	11	27	22	0	11	1	0	24	16	1	7	11
Aug. 6	21	4	1	19	47	2	2	8	2	14	17	2	26	17	3	8	10	3	19	59	4	1	46
13	28	4	4	13	34	4	25	24	5	7	19	5	19	23	6	1	38	6	14	9	6	26	59
20	3	5	7	10	10	7	23	46	8	7	48	8	22	14	9	7	2	9	22	6	10	7	17
27	10	5	10	22	27	11	7	25	11	22	4	0	6	20	0	20	8	1	3	29	1	16	25
Sept.3	17	5	1	28	59	2	11	15	2	23	18	3	5	12	3	17	0	3	28	47	4	10	35
10	24	5	4	22	26	5	4	24	5	16	29	5	28	44	6	11	10	6	23	50	7	6	44
17	31	5	7	19	55	8	3	26	8	17	16	9	1	27	9	15	57	10	0	43	10	15	40
24	7	6	11	0	40	11	15	34	0	0	15	0	14	35	0	28	29	1	11	56	1	24	57
Oct. 1	14	6	2	7	33	2	19	50	3	1	52	3	13	43	3	25	30	4	7	17	4	19	8
8	21	6	5	1	7	5	13	15	5	25	34	6	8	5	6	20	50	7	3	46	7	16	55
15	28	6	8	0	16	8	13	50	8	27	36	9	11	36	9	25	48	10	10	12	10	24	45
22	5	7	11	9	22	11	23	58	0	8	24	0	22	36	1	6	27	1	19	54	2	2	56
29	12	7	2	15	34	2	27	53	3	9	56	3	21	48	4	3	35	4	15	24	4	27	18
Nov 5	19	7	5	9	22	5	21	39	6	4	12	6	17	2	7	0	8	7	13	28	7	27	00
12	26	7	8	10	42	8	24	31	9	8	26	9	22	26	10	6	30	10	20	38	11	4	48
19	3	8	11	18	59	0	3	8	0	17	10	1	1	0	1	14	35	1	27	51	2	10	46
26	10	8	2	23	22	3	5	39	3	17	42	3	29	35	4	11	23	4	23	12	5	5	07
Dec. 3	17	8	5	17	13	5	29	35	6	12	16	6	25	19	7	8	42	7	22	25	8	6	23
10	24	8	8	20	32	9	4	47	9	19	4	10	3	19	10	17	29	11	1	35	11	15	34
17	1	9	11	29	26	0	13	9	0	26	44	1	10	7	1	23	18	2	6	14	2	18	55
24	8	9	3	1	21	3	13	33	3	25	33	4	7	25	4	19	13	5	1	1	5	12	55
31	15	9	5	25	0	6	7	21	6	20	3	7	3	8	7	16	38	8	0	32	8	14	48

Ayanamsa on 1st Jan. : 23° 18′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	15	9	8	26s	16	8	20s	47	2R	14	49	8	17	02	10	1	58	8	14s	07	8	15	42
3	16	9	8	26	30	8	21	15	2	14	02	8	19	04	10	4	15	8	17	18	8	18	55
5	18	9	8	26	45	8	21☌	43	2	13	16	8	21	06	10	6	31	8	20☌	32	8	22	09
7	20	9	8	26	59	8	22	11	2	12	32	8	23	09	10	8	47	8	23	46	8	25	24
9	22	9	8	27	13	8	22	38	2	11	49	8	25	11	10	11	01	8	27	03	8	28	42
11	24	9	8	27☌	27	8	23	06	2	11	08	8	27	13	10	13	15	9	0	21	9	2	01
13	26	9	8	27	41	8	23	34	2	10	30	8	29	16	10	15	28	9	3	41	9	5	21
15	28	9	8	27	56	8	24	02	2	9	54	9	1	18	10	17	40	9	7	02	9	8	44
17	1	10	8	28	10	8	24	30	2	9	21	9	3	20	10	19	50	9	10	25	9	12	08
19	3	10	8	28	24	8	24r	58	2	8	50	9	5	22	10	22	00	9	13	50	9	15	32
21	5	10	8	28	38	8	25	26	2	8	23	9	7	25	10	24	09	9	17	15	9	18	57
23	7	10	8	28	52	8	25	53	2	7	59	9	9	27	10	26	16	9	20	40	9	22r	22
25	9	10	8	29	06	8	26	21	2	7	38	9	11	29	10	28	22	9	24	04	9	25	45
27	11	10	8	29r	20	8	26	48	2	7	21	9	13	31	11	0	26	9	27	25	9	29	05
29	13	10	8	29	34	8	27	16	2	7	06	9	15	33	11	2	29	10	0	42	10	2	18
31	15	10	8	29	48	8	27	43	2	6	55	9	17	34	11	4	30	10	3	52	10	5	22
Feb. 2	17	10	9	0	02	8	28	10	2	6	47	9	19	36	11	6	30	10	6	50	10	8	13
4	18	10	9	0	15	8	28	37	2	6	43	9	21	38	11	8	27	10	9	32	10	10	45
6	20	10	9	0	29	8	29	04	2D	6	41	9	23	39	11	10	22	10	11	52	10	12	53
8	22	10	9	0	42	8	29	30	2	6	42	9	25	41	11	12	15	10	13	46	10	14	30
10	24	10	9	0	55	8	29	57	2	6	46	9	27	42	11	14	06	10	15	05	10	15	31
12	27	10	9	1	08	9	0	23	2	6	53	9	29	44	11	15	54	10	15	47	10R	15	52
14	29	10	9	1	21	9	0	49	2	7	03	10	1	45	11	17	40	10	15	46	10	15	30
16	1	11	9	1	34	9	1	15	2	7	16	10	3	46	11	19	23	10	15s	04	10	14	28
18	4	11	9	1	47	9	1	41	2	7	31	10	5	48	11	21	02	10	13	44	10	12	52
20	6	11	9	2	00	9	2	06	2	7	49	10	7	49	11	22	38	10	11	55	10	10☌	52
22	8	11	9	2	12	9	2	31	2	8	09	10	9	50	11	24	11	10	9	47	10	8	41
24	10	11	9	2	24	9	2	56	2	8	31	10	11	50	11	25	39	10	7	35	10	6	38
26	11	11	9	2	36	9	3	21	2	8	56	10	13	51	11	27	03	10	5	32	10	4r	36
28	13	11	9	2	48	9	3	45	2	9	22	10	15	51	11	28	22	10	3	46	10	3	02
Mar. 2	15	11	9	2	59	9	4	09	2	9	51	10	17	52	11	29	37	10	2	25	10	1	54
4	17	11	9	3	10	9	4	33	2	10	22	10	19	52	0	0	46	10	1	31	10	1	14
6	19	11	9	3	21	9	4	56	2	10	54	10	21	52	0	1	49	10D	1	05	10	1	02
8	21	11	9	3	32	9	5	19	2	11	28	10	23	52	0	2	45	10	1	05	10	1	14
10	23	11	9	3	43	9	5	42	2	12	04	10	25	52	0	3	35	10	1	29	10	1	50
12	25	11	9	3	53	9	6	05	2	12	41	10	27	52	0	4	18	10	2	15	10	2	46
14	27	11	9	4	03	9	6	27	2	13	20	10	29	52	0	4	53	10	3	21	10	4	00
16	30	11	9	4	13	9	6	48	2	14	00	11	1	51	0	5	19	10	4	42	10	5	29
18	2	12	9	4	23	9	7	10	2	14	42	11	3	51	0	5	37	10	6	19	10	7	12
20	4	12	9	4	32	9	7	31	2	15	25	11	5	50	0	5R	46	10	8	08	10	9	07
22	6	12	9	4	41	9	7	51	2	16	09	11	7	49	0	5	45	10	10	09	10	11	13
24	8	12	9	4	49	9	8	11	2	16	54	11	9	48	0	5	35	10	12	20	10	13	29
26	10	12	9	4	58	9	8	31	2	17	41	11	11	47	0	5	14	10	14	40	10	15	53
28	12	12	9	5	06	9	8	50	2	18	29	11	13	46	0	4	43	10	17	08	10	18	25
30	13	12	9	5	13	9	9	08	2	19	17	11	15	45	0	4	03	10	19	44	10	21	05
Apr. 1	15	12	9	5	21	9	9	27	2	20	07	11	17	43	0	3	14	10	22	27	10	23	51
3	17	12	9	5	28	9	9	44	2	20	58	11	19	41	0	2	16	10	25	17	10	26	45
5	19	12	9	5	35	9	10	02	2	21	49	11	21	39	0	1	12	10	28	14	10	29	44
7	21	12	9	5	41	9	10	18	2	22	42	11	23	38	0	0s	02	11	1	17	11	2	51
9	24	12	9	5	47	9	10	34	2	23	35	11	25	35	11	28☌	48	11	4	26	11	6s	03
11	26	12	9	5	53	9	10	50	2	24	29	11	27	33	11	27r	33	11	7	41	11	9	21
13	28	12	9	5	58	9	11	05	2	25	24	11	29	31	11	26	17	11	11	03	11	12	46
15	30	12	9	6	03	9	11	20	2	26	19	0	1	29	11	25	04	11	14	31	11	16	17
17	2	1	9	6	07	9	11	33	2	27	15	0	3	26	11	23	55	11	18	05	11	19	54

Ayanamsa on 1st Jan. : 23° 18′ 38″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	2	1	9 6 07	9 11 33	2 27 15	0 3 26	11R23 55	11 18s05	11 19 54
19	4	1	9 6 12	9 11 47	2 28 12	0 5 23	11 22 52	11 21 45	11 23 38
21	6	1	9 6 15	9 11 59	2 29 10	0 7 20	11 21 55	11 25 32	11 27 28
23	8	1	9 6 19	9 12 11	3 0 08	0 9 17	11 21 07	11 29 25	0 1 24
25	10	1	9 6 22	9 12 23	3 1 17	0 11 14	11 20 28	0 3 24	0 5 26
27	12	1	9 6 25	9 12 33	3 2 06	0 13 11	11 19 58	0 7 30	0 9 34
29	14	1	9 6 27	9 12 44	3 3 06	0 15 08	11 19 38	0 11 40	0 13 47
May 1	16	1	9 6 29	9 12 53	3 4 06	0 17 04	11 19 27	0 15⊙56	0 18 04
3	18	1	9 6 30	9 13 02	3 5 07	0 19 00	11D19 26	0 20 14	0 22 24
5	20	1	9 6 31	9 13 10	3 6 09	0 20 57	11 19 35	0 24 33	0 26 43
7	22	1	9 6 32	9 13 17	3 7 11	0 22 53	11 19 52	0 28 52	1 1 01
9	24	1	9R6 32	9 13 24	3 8 13	0 24 49	11 20 18	1 3 09	1 5 15
11	27	1	9 6 32	9 13 30	3 9 16	0 26 45	11 20 52	1 7 20	1 9r22
13	29	1	9 6 32	9 13 35	3 10 19	0 28 41	11 21 34	1 11 23	1 13 21
15	1	2	9 6 31	9 13 39	3 11 22	1 0 37	11 22 22	1 15 18	1 17 11
17	3	2	9 6 30	9 13 43	3 12 26	1 2 32	11 23 17	1 19 01	1 20 49
19	5	2	9 6 28	9 13 46	3 13 31	1 4 28	11 24 18	1 22 33	24 15
21	6	2	9 6 26	9 13 48	3 14 36	1 6 23	11 25 24	1 25 53	1 27 28
23	8	2	9 6 24	9 13 50	3 15 41	1 8 19	11 26 35	1 29 00	2 0 29
25	10	2	9 6 21	9R13 50	3 16 46	1 10 14	11 27 52	2 1 54	2 3 16
27	12	2	9 6 18	9 13 50	3 17 52	1 12 09	11 29 12	2 4 34	2 5 49
29	14	2	9 6 14	9 13 49	3 18 58	1 14 04	0 0 37	2 7 00	2 8 08
31	16	2	9 6 11	9 13 48	3 20 05	1 15 59	0 2 05	2 9 12	2 10 13
June 2	19	2	9 6 06	9 13 45	3 21 12	1 17 54	0 3 37	2 11 09	2 12 02
4	21	2	9 6 02	9 13 42	3 22 19	1 19 49	0 5 12	2 12 51	2 13 36
6	23	2	9 5 57	9 13 38	3 23 26	1 21 44	0 6 51	2 14 17	2 14 54
8	25	2	9 5 52	9 13 34	3 24 34	1 23 39	0 8 31	2 15 26	2 15 54
10	27	2	9 5 46	9 13 28	3 25 42	1 25 34	0 10 15	2 16 18	2 16 37
12	29	2	9 5 41	9 13 22	3 26 50	1 27 28	0 12 01	2 16 52	2 17 02
14	1	2	9 5 35	9 13 16	3 27 59	1 29 23	0 13 49	2R17 07	2 17 09
16	3	2	9 5 28	9 13 08	3 29 07	2 1 18	0 15 39	2 17 05	2 16 58
18	5	2	9 5 22	9 13 00	4 0 17	2 3 12	0 17 31	2 16s45	2 16 28
20	7	2	9 5 15	9 12 51	4 1 26	2 5 07	0 19 25	2 16 08	2 15 45
22	9	2	9 5 08	9 12 42	4 2 36	2 7 01	0 21 20	2 15 18	2 14 48
24	11	2	9 5 00	9 12 31	4 3 46	2 8 56	0 23 17	2 14 16	2 13 48
26	13	2	9 4 53	9 12 21	4 4 56	2 10 50	0 25 15	2 13 08	2 12⊙33
28	15	2	9 4 45	9 12 10	4 6 06	2 12 45	0 27 15	2 11 57	2 11 22
30	17	2	9 4 37	9 11 58	4 7 17	2 14 39	0 29 16	2 10 48	2 10 16
July 2	20	2	9 4 29	9 11 45	4 8 27	2 16 33	1 1 18	2 9 47	2 9 20
4	22	2	9 4 21	9 11 33	4 9 39	2 18 28	1 3 22	2 8 57	2 8 37
6	24	2	9 4 12	9 11 19	4 10 50	2 20 22	1 5 26	2 8r21	2 8 10
8	26	2	9 4 04	9 11 06	4 12 01	2 22 16	1 7 32	2D8 04	2 8 02
10	28	2	9 3 55	9 10 52	4 13 13	2 24 11	1 9 39	2 8 06	2 8 14
12	30	2	9 3 46	9 10 37	4 14 25	2 26 05	1 11 46	2 8 28	2 8 47
14	2	3	9 3 38	9 10 23	4 15 38	2 28 00	1 13 54	2 9 12	2 9 42
16	3	3	9 3 29	9 10 08	4 16 50	2 29 54	1 16 04	2 10 17	2 10 58
18	5	3	9 3⊙20	9 9 53	4 18 03	3 1 49	1 18 13	2 11 44	2 12 35
20	7	3	9 3 11	9 9 37	4 19 16	3 3 43	1 20 24	2 13 31	2 14 32
22	9	3	9 3 02	9 9 22	4 20 29	3 5 38	1 22 35	2 15 38	2 16 50
24	11	3	9 2 53	9 9 06	4 21 42	3 7 33	1 24 47	2 18 06	2 19 27
26	13	3	9 2 44	9 8⊙51	4 22 56	3 9 27	1 27 00	2 20 52	2 22 22
28	16	3	9 2 36	9 8 35	4 24 10	3 11 22	1 29 13	2 23 56	2 25 34
30	18	3	9 2 27	9 8 20	4 25 24	3 13 16	2 1 27	2 27 16	2 29 02
Aug. 1	20	3	9 2 18	9 8 04	4 26 38	3 15 11	2 3 42	3 0 51	3 2 43

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 18′ 38″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			गु ♃ गु			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	20	3	9R	2	18	9R	8	04	4	26	38	3	15	11	2	3	42	3	0	51	3	2	43
3	22	3	9	2	10	9	7	49	4	27	52	3	17	06	2	5	57	3	4s	38	3	6	35
5	25	3	9	2	02	9	7	34	4	29	07	3	19	01	2	8	13	3	8	34	3	10	34
7	26	3	9	1	53	9	7	19	5	0	22	3	20	56	2	10	29	3	12	36	3	14	39
9	28	3	9	1	45	9	7	05	5	1	37	3	22	51	2	12	46	3	16	43	3	18	46
11	30	3	9	1	38	9	6	50	5	2	52	3	24	46	2	15	03	3	20	50	3	22	54
13	2	4	9	1	30	9	6	37	5	4	08	3	26	41	2	17	21	3	24	57	3	26	59
15	4	4	9	1	22	9	6	23	5	5	24	3	28	37	2	19	39	3	29	01	4	1	01
17	6	4	9	1	15	9	6	10	5	6	40	4	0	32	2	21	58	4	3	01	4	4	59
19	8	4	9	1	08	9	5	57	5	7	56	4	2	27	2	24	17	4	6	56	4	8	52
21	10	4	9	1	01	9	5	45	5	9	12	4	4	23	2	26	37	4	10	47	4	12	40
23	12	4	9	0	55	9	5	34	5	10	29	4	6	18	2	28	56	4	14	32	4	16	22
25	14	4	9	0	49	9	5	23	5	11	46	4	8	14	3	1	17	4	18	11	4	19	59
27	17	4	9	0	43	9	5	12	5	13	03	4	10	10	3	3	38	4	21	46	4	23	31
29	19	4	9	0	37	9	5	03	5	14	20	4	12	06	3	5	59	4	25	15	4	26	57
31	21	4	9	0	32	9	4	53	5	15	38	4	14	02	3	8	20	4	28	39	5	0	19
Sept. 2	23	4	9	0	27	9	4	45	5	16	55	4	15	58	3	10	42	5	1	58	5	3	35
4	25	4	9	0	22	9	4	37	5	18	13	4	17	54	3	13	05	5	5r	11	5	6	47
6	27	4	9	0	18	9	4	30	5	19	31	4	19	50	3	15	27	5	8	20	5	9	53
8	29	4	9	0	14	9	4	24	5	20	50	4	21	47	3	17	50	5	11	25	5	12	55
10	30	4	9	0	10	9	4	18	5	22	08	4	23	44	3	20	14	5	14	24	5	15	52
12	2	5	9	0	07	9	4	13	5	23	27	4	25	40	3	22	37	5	17	19	5	18	44
14	4	5	9	0	01	9	4	09	5	24	46	4	27	37	3	25	01	5	20	09	5	21	32
16	6	5	9	0	02	9	4	06	5	26	06	4	29	34	3	27	26	5	22	53	5	24	14
18	8	5	9	0	00	9	4	03	5	27	25	5	1	31	3	29	50	5	25	33	5	26	50
20	10	5	8	29	58	9	4	01	5	28	45	5	3	28	4	2	15	5	28	06	5	29	21
22	13	5	8	29	57	9	4	00	6	0	05	5	5	26	4	4	40	6	0	34	6	1	45
24	15	5	8	29	56	9D	4	00	6	1	25	5	7	23	4	7	06	6	2	54	6	4	01
26	17	5	8	29	55	9	4	00	6	2	45	5	9	21	4	9	32	6	5	06	6	6	09
28	19	5	8D	29	55	9	4	02	6	4	06	5	11	18	4	11	58	6	7	10	6	8	08
30	21	5	8	29	55	9	4	04	6	5	26	5	13	16	4	14	24	6	9	04	6	9	56
Oct. 2	23	5	8	29	56	9	4	07	6	6	48	5	15	14	4	16	51	6	10	45	6	11	30
4	25	5	8	29	57	9	4	10	6	8	09	5	17	12	4	19	18	6	12	12	6	12	50
6	27	5	8	29	58	9	4	15	6	9	30	5	19	11	4	21	45	6	13	22	6	13	50
8	29	5	9	0	00	9	4	20	6	10s	52	5	21	09	4	24	12	6	14	13	6	14	29
10	1	6	9	0	02	9	4	26	6	12	14	5	23	08	4	26	39	6R	14	39	6	14	42
12	3	6	9	0	05	9	4	33	6	13	36	5	25	06	4	29	07	6	14	58	6	14	26
14	5	6	9	0	08	9	4	40	6	14	59	5	27	05	5	1	35	6	14s	06	6	13	38
16	7	6	9	0	11	9	4	48	6	16	21	5	29	04	5	4	03	6	13	01	6	12	15
18	9	6	9	0	15	9	4	57	6	17	44	6	1	03	5	6	32	6	11	22	6	10	21
20	11	6	9	0	19	9	5	07	6	19	07	6	3	02	5	9	00	6	9	15	6	8	03
22	13	6	9	0	24	9	5	17	6	20	30	6	5	02	5	11	29	6	6	49	6	5	33
24	16	6	9	0	29	9	5	28	6	21	54	6	7	01	5	13	58	6	4	19	6	3	09
26	18	6	9	0	34	9	5	39	6	23	18	6	9	01	5	16	26	6	2	04	6	1r	08
28	20	6	9	0	40	9	5	52	6	24	42	6	11	01	5	18	56	6	0	20	5	29	43
30	22	6	9	0	46	9	6	05	6	26	06	6	13	00	5	21	25	5	29	17	5D	29	03
Nov. 1	24	6	9	0	52	9	6	18	6	27	30	6	15	00	5	23	54	5	29	00	5	29	08
3	25	6	9	0	59	9	6	33	6	29	05	6	17	00	5	26	24	5	29	27	5	29	56
5	27	6	9	1	06	9	6	47	7	0	20	6	19	01	5	28	54	6	0	33	6	1	19
7	29	6	9	1	13	9	7	03	7	1	45	6	21	01	6	1	23	6	2	12	6	3	12
9	1	7	9	1	21	9	7	19	7	3	10	6	23	02	6	3	53	6	4	17	6	5	27
11	3	7	9	1	29	9	7	35	7	4	36	6	25	02	6	6	23	6	6	40	6	7	59
13	5	7	9	1	38	9	7	53	7	6	02	6	27	03	6	8	53	6	9	19	6	10	43
15	7	7	9	1	46	9	8	10	7	7	28	6	29	04	6	11	24	6	12	08	6	13	35

Longitudes of Planets

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																		
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Nov 15	7	7	9	1	46	9	8	10	7	7s	28	6	29	04	6	11	24	6	12	08	6	13	35
17	10	7	9	1	55	9	8	28	7	8	54	7	1	05	6	13	54	6	15	04	6	16	34
19	12	7	9	2	05	9	8	47	7	10	20	7	3	06	6	16	24	6	18	04	6	19	36
21	14	7	9	2	14	9	9	06	7	11	47	7	5	07	6	18	55	6	21	08	6	22	41
23	16	7	9	2	24	9	9	26	7	13	14	7	7	08	6	21	25	6	24	14	6	25s	47
25	18	7	9	2	34	9	9	46	7	14	41	7	9	09	6	23	56	6	27	21	6	28	55
27	20	7	9	2	45	9	10	07	7	16	08	7	11	11	6	26	26	7	0	29	7	2	03
29	22	7	9	2	56	9	10	28	7	17	36	7	13	12	6	28	57	7	3	37	7	5	11
Dec. 1	24	7	9	3	06	9	10	50	7	19	03	7	15	14	7	1	28	7	6	45	7	8	19
3	25	7	9	3	18	9	11	11	7	20	31	7	17	16	7	3	58	7	9	53	7	11	27
5	27	7	9	3	29	9	11	34	7	22	00	7	19	17	7	6	29	7	13	01	7	14	35
7	29	7	9	3	41	9	11	56	7	23	28	7	21	19	7	9	00	7	16	09	7	17	43
9	2	8	9	3	53	9	12	20	7	24	57	7	23	21	7	11	31	7	19	17	7	20	51
11	4	8	9	4	05	9	12	43	7	26	25	7	25	23	7	14	02	7	22	25	7	24	00
13	6	8	9	4	17	9	13	07	7	27	54	7	27	25	7	16	33	7	25	34	7	27	08
15	8	8	9	4	29	9	13	31	7	29	23	7	29	27	7	19	04	7	28	43	8	0	17
17	10	8	9	4	42	9	13	56	8	0	53	8	1	29	7	21	35	8	1	52	8	3	26
19	12	8	9	4	55	9	14	20	8	2	22	8	3	31	7	24	05	8	5	01	8	6	36
21	14	8	9	5	08	9	14	45	8	3	52	8	5	34	7	26	36	8	8	12	8	9	47
23	16	8	9	5	21	9	15	11	8	5	22	8	7	36	7	29	07	8	11	23	8	12	59
25	18	8	9	5	34	9	15	36	8	6	52	8	9	38	8	1	38	8	14	35	8	16	11
27	20	8	9	5	47	9	16	02	8	8	23	8	11	40	8	4	09	8	17	48	8	19	24
29	22	8	9	6	01	9	16	29	8	9	53	8	13	43	8	6s	40	8	21	01	8	22	38
31	24	8	9	6	14	9	16	55	8	11	24	8	15	45	8	9	11	8	24	16	8	25	53
Jan. 2	26	8	9	6	21	9	17	08	8	12	09	8	17	47	8	11	42	8	27	31	8	29	09

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊			Mean ☊			♅			♆			♇			Ayanam		
		s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	°	′	″
January	1	4	14	33	4	16	2	4 *R*	2	04	6	17	32	4 *R*	14	42	23	18	35
February	1	4	13	2	4	14	24	4	0	58	6 R	17	58	4	14	9	23	18	4
March	1	4	13	0	4	12	54	3	29	45	6	17	55	4	13	27	23	18	4
April	1	4	12	40	4	11	16	3	28	42	6	17	24	4	12	43	23	18	4
May	1	4	10	43	4	9	40	3 D	28	20	6	16	38	4	12	17	23	18	5
June	1	4	7	26	4	8	2	3	28	48	6	15	50	4 D	12	17	23	18	5
July	1	4	4	51	4	6	27	3	29	59	6	15	20	4	12	41	23	19	
August	1	4	3	53	4	4	48	4	1	42	6 D	15	16	4	13	32	23	19	
September	1	4	3	55	4	3	9	4	3	37	6	15	42	4	14	33	23	19	
October	1	4	3	21	4	1	33	4	5	20	6	16	31	4	15	33	23	19	1
November	1	4	0	53	3	29	55	4	6	40	6	17	38	4	16	22	23	19	1
December	1	3	27	27	3	28	20	4 R	7	12	6	18	43	4 R	16	46	23	19	1
January	1	3	25	4	3	26	41	4	6	55	6	19	38	4	16	42	23	19	2

Combustion or Heliacal Setting of Planets

Saturn	:	From Dec. 28 ('60) to Jan. 27.
Jupiter	:	From Dec. 25 ('60) to Jan. 18.
Mars	:	From Oct. 9 to Mar. 10 ('62).
Venus	:	From Apr. 7 to Apr. 11 Dec. 30 to Feb. 21 ('62).
Mercury	:	Upto Jan. 24, then from Feb. 16 to Feb. 27, Apr. 10 to May 1 June 18 to July 6, Aug. 3 to Sept. 4, Oct. 14 to Oct. 27, Nov. 2 to Jan. 7 ('62)

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Feb.	12,	29	3	10	15	52	Mar.	6,	28	57	10	1	2
	June	14,	22	40	2	17	9	July	8,	25	0	2	8	2
	Oct.	10,	27	58	6	14	42	Oct.	31,	23	38	5	29	0
Venus	Mar.	20,	25	39	0	5	47	May	2,	9	50	11	19	25
Mars	—		—			—		Feb.	6,	8	22	2	6	41
Jupiter	May	25,	24	9	9	13	50	Sept.	23,	20	57	9	4	0
Saturn	May	9,	22	13	9	6	32	Sept.	27,	25	6	8	29	55
Uranus	—		—			—		Apr.	29,	13	14	3	28	20
	Dec.	6,	10	0	4	7	14	—		—			—	
Neptune	Feb.	11,	16	59	6	18	0	July	20,	23	58	6	15	13
Pluto	—		—			—		May	17,	10	48	4	12	13
	Dec.	12,	17	36	4	16	48	—		—			—	

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi month begin	
	d	h	m				d	h	m		
		—				Jan.	1	28	36	Māgha	Vadi
Jan.	16	27	0	Māgha	Sukla	Jan.	31	24	17	Phālguna	,,
Feb.	15	13	40	Phālguna	,,	Mar.	2	19	5	Caitra	,,
Mar.	16	24	21	Caitra	,,	Apr.	1	11	17	Vaiśakha	,,
Apr.	15	11	7	Vaiśākha	,,	Apr.	30	24	10	Jyaiṣṭha	,,
May	14	22	24	Jyaiṣṭha (*Mala*)	,,	May	30	10	7	Jyaistha (*Adhika*)	,,
June	13	10	46	Jyaiṣṭha	,,	June	28	18	7	Āṣāḍha	,,
July	12	24	41	Āṣāḍha	,,	July	'27	25	20	Śrāvaṇa	,,
Aug.	11	16	6	Śrāvaṇa	,,	Aug.	26	8	43	Bhādra	,,
Sept.	10	8	19	Bhādra	,,	Sept.	24	17	3	Āśvina	,,
Oct.	9	24	22	Āśvina	,,	Oct.	23	27	0	Kārtika	,,
Nov.	8	15	28	Kārtika	,,	Nov.	22	15	14	Margā	,,
Dec.	7	29	22	Agrahā	,,	Dec.	22	6	12	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	22	56	Karkaṭa	on	July	16	7	52
Kumbha	on	Feb.	12	11	53	Siṁha	on	Aug.	16	16	14
Mīna	on	Mar.	14	8	47	Kanyā	on	Sept.	16	16	6
Meṣa	on	Apr.	13	17	22	Tulā	on	Oct.	16	28	0
Vṛṣa	on	May	14	14	19	Vṛścika	on	Nov.	15	27	46
Mithuna	on	June	14	20	59	Dhanus	on	Dec.	15	18	22

1962 A.D. Longitude of Moon CONDENSED

Saka era 1883-84, Saṁvat 2018-19 (Apr. 5, Oct. 29), B.S. 1368-69 (Apr. 15),
Kollam era 1137-38 (Aug. 17), 36 Subhakrit (Apr. 5, 14)

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ চ) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec. 31	15 9	5 25 0	6 7 21	6 20 3	7 3 8	7 16 38	8 0 32	8 14 48
Jan. 7	22 9	8 29 20	9 14 2	9 28 47	10 13 27	10 27 58	11 12 16	11 26 19
14	29 9	0 10 5	0 23 35	1 6 51	1 19 51	2 2 38	2 15 13	2 27 36
21	7 10	3 9 48	3 21 51	4 3 46	4 15 36	4 27 24	5 9 13	5 21 7
28	14 10	6 3 10	6 15 28	6 28 4	7 11 3	7 24 28	8 8 20	8 22 39
Feb. 4	21 10	9 7 20	9 22 17	10 7 23	10 22 28	11 7 24	11 22 3	0 6 20
11	28 10	0 20 14	1 3 45	1 16 53	1 29 41	2 12 13	2 24 31	3 6 39
18	6 11	3 18 38	4 0 32	4 12 22	4 24 11	5 6 0	5 17 52	5 29 50
25	13 11	6 11 56	6 24 14	7 6 48	7 19 41	8 2 56	8 16 37	9 0 45
Mar. 4	20 11	9 15 18	10 0 12	10 15 22	11 0 38	11 15 49	0 0 45	0 15 20
11	27 11	0 29 28	1 13 7	1 26 18	2 9 5	2 21 31	3 3 42	3 15 41
18	4 12	3 27 33	4 9 21	4 21 9	5 2 59	5 14 53	5 26 52	6 8 58
25	11 12	6 21 13	7 3 38	7 16 16	7 29 9	8 12 20	8 25 52	9 9 46
Apr. 1	18 12	9 24 3	10 8 42	10 23 39	11 8 46	11 23 54	0 8 54	0 23 35
8	25 12	1 7 51	1 21 38	2 4 56	2 17 47	3 0 15	3 12 25	3 24 23
15	2 1	4 6 13	4 18 00	4 29 48	5 11 42	5 23 42	6 5 51	6 18 10
22	9 1	7 0 39	7 13 19	7 26 11	8 9 14	8 22 30	9 6 2	9 19 49
29	16 1	10 3 54	10 18 16	11 2 52	11 17 39	0 2 28	0 17 13	1 1 45
May 6	23 1	1 15 56	1 29 42	2 13 1	2 25 55	3 8 26	3 20 38	4 2 37
13	30 1	4 14 28	4 26 17	5 8 8	5 20 6	6 2 13	6 14 33	6 27 6
20	6 2	7 9 52	7 22 51	8 6 3	8 19 25	9 2 58	9 16 41	10 0 33
27	13 2	10 14 36	10 28 47	11 13 6	11 27 30	0 11 54	0 26 14	1 10 23
June 3	20 2	1 24 16	2 7 49	2 21 1	3 3 51	3 16 20	3 28 33	4 10 33
10	27 2	4 22 26	5 4 17	5 16 10	5 28 11	6 10 23	6 22 50	7 5 31
17	2 3	7 18 35	8 1 54	8 15 28	8 29 15	9 13 11	9 27 16	10 11 24
24	9 3	10 25 36	11 9 48	11 23 58	0 8 6	0 22 7	1 6 0	1 19 42
July 1	16 3	2 3 10	2 16 23	2 29 18	3 11 57	3 24 20	4 6 29	4 18 28
8	23 3	5 0 21	5 12 12	5 24 6	6 6 7	6 18 21	7 0 50	7 13 39
15	30 3	7 26 49	8 10 21	8 21 13	9 8 23	9 22 46	10 7 16	10 21 50
22	6 4	11 6 20	11 20 43	0 4 56	0 18 57	1 2 44	1 16 16	1 29 34
29	13 4	2 12 37	2 25 27	3 8 3	3 20 27	4 2 40	4 14 43	4 26 39
Aug. 5	20 4	5 8 30	5 20 20	6 2 13	6 14 13	6 26 25	7 8 52	7 21 39
12	27 4	8 4 50	8 18 25	9 2 26	9 16 50	10 1 33	10 16 27	11 1 26
19	2 5	11 16 20	0 1 2	0 15 26	0 29 30	1 13 13	1 26 34	2 9 36
26	9 5	2 22 21	3 4 52	3 17 11	3 29 20	4 11 22	4 23 19	5 5 11
Sept. 2	16 5	5 17 1	5 28 52	6 10 45	6 22 45	7 4 55	7 17 18	8 0 0
9	23 5	8 13 4	8 26 34	9 10 32	9 24 57	10 9 46	10 24 53	11 10 9
16	30 5	11 25 22	0 10 23	0 25 4	1 9 19	1 23 6	2 6 26	2 19 22
23	6 6	3 1 58	3 14 17	3 26 25	4 8 24	4 20 18	5 2 10	5 14 0
30	13 6	5 25 52	6 7 45	6 19 43	7 1 47	7 13 59	7 26 22	8 9 1
Oct. 7	20 6	8 21 59	9 5 20	9 19 7	10 3 21	10 18 2	11 3 4	11 18 20
14	27 6	0 3 40	0 18 51	1 3 43	1 18 9	2 2 6	2 15 32	2 28 30
21	4 7	3 11 5	3 23 22	4 5 25	4 17 20	4 29 10	5 11 0	5 22 51
28	11 7	6 4 46	6 16 46	6 28 53	7 11 6	7 23 28	8 5 59	8 18 43
Nov. 4	18 7	9 1 42	9 14 59	9 28 38	10 12 38	10 27 1	11 11 46	11 26 45
11	25 7	0 11 52	0 26 55	1 11 45	1 26 13	2 10 14	2 23 46	3 6 51
18	2 8	3 19 31	4 1 50	4 13 55	4 25 50	5 7 40	5 19 30	6 1 24
25	9 8	6 13 24	6 25 33	7 7 50	7 20 18	8 2 57	8 15 46	8 28 45
Dec. 2	16 8	9 11 57	9 25 22	10 9 1	10 22 56	11 7 5	11 21 29	0 6 4
9	23 8	0 20 44	1 5 23	1 19 53	2 4 7	2 18 1	3 1 31	3 14 37
16	30 8	3 27 21	4 9 45	4 21 53	5 3 51	5 15 43	5 27 35	6 9 31
23	7 9	6 21 34	7 3 48	7 16 16	7 28 58	8 11 55	8 25 7	9 8 31
30	14 9	9 22 7	10 5 54	10 19 49	11 3 51	11 17 59	0 2 11	0 16 25
Jan. 6	21 9	1 0 38	1 14 46	1 28 46	2 12 34	2 26 7	3 9 24	3 22 22

Ayanamsa on 1st Jan. : 23° 19′ 23″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	25	8	9	6	21	9	17	08	8	12	s09	8	16	46	8	10	s27	8	25	s53	8	27	31
3	27	8	9	6	35	9	17	35	8	13	40	8	18	48	8	12	58	8	29	09	9	0	47
5	29	8	9	6	49	9	18	02	8	15	11	8	20	51	8	15	29	9	2	24	9	4	02
7	1	9	9	7	s03	9	18	29	8	16	42	8	22	53	8	18	00	9	5	r39	9	7	16
9	3	9	9	7	17	9	18	56	8	18	14	8	24	55	8	20	31	9	8	53	9	10	29
11	6	9	9	7	31	9	19	24	8	19	45	8	26	58	8	23	02	9	12	04	9	13	38
13	8	9	9	7	45	9	19	51	8	21	17	8	29	00	8	25	33	9	15	10	9	16	41
15	10	9	9	7	59	9	20	19	8	22	49	9	1	02	8	28	04	9	18	10	9	19	36
17	12	9	9	8	14	9	20	47	8	24	21	9	3	04	9	0	34	9	20	59	9	22	18
19	14	9	9	8	28	9	21	15	8	25	53	9	5	07	9	3	05	9	23	33	9	24	44
21	16	9	9	8	42	9	21	43	8	27	26	9	7	09	9	5	36	9	25	48	9	26	46
23	18	9	9	8	☌56	9	22	12	8	28	58	9	9	11	9	8	07	9	27	36	9	28	18
25	19	9	9	9	11	9	22	40	9	0	31	9	11	13	9	10	38	9	28	52	9	29	15
27	21	9	9	9	25	9	23	s09	9	2	03	9	13	15	9	13	☌08	9R	29	27	9	29	29
29	23	9	9	9	39	9	23	37	9	3	36	9	15	17	9	15	39	9	29	19	9	28	58
31	25	9	9	9	53	9	24	04	9	5	09	9	17	18	9	18	10	9	28	s26	9	27	44
Feb. 2	27	9	9	10	08	9	24	34	9	6	42	9	19	20	9	20	41	9	26	52	9	25	52
4	29	9	9	10	22	9	25	03	9	8	15	9	21	22	9	23	11	9	24	47	9	23	☌37
6	2	10	9	10	36	9	25	32	9	9	49	9	23	24	9	25	42	9	22	24	9	21	12
8	4	10	9	10	50	9	26	☌00	9	11	22	9	25	25	9	28	12	9	20	01	9	18	54
10	6	10	9	11	r04	9	26	29	9	12	56	9	27	27	10	0	43	9	17	r52	9	16	56
12	8	10	9	11	18	9	26	58	9	14	29	9	29	28	10	3	13	9	16	07	9	15	25
14	10	10	9	11	31	9	27	27	9	16	03	10	1	30	10	5	44	9	14	52	9	14	36
16	12	10	9	11	45	9	27	55	9	17	36	10	3	31	10	8	14	9	14	08	9D	13	58
18	14	10	9	11	59	9	28	24	9	19	10	10	5	32	10	10	44	9	13	55	9	14	00
20	16	10	9	12	12	9	28	52	9	20	44	10	7	33	10	13	14	9	14	10	9	14	27
22	18	10	9	12	25	9	29	21	9	22	18	10	9	34	10	15	r44	9	14	49	9	15	17
24	20	10	9	12	39	9	29	r49	9	23	52	10	11	34	10	18	15	9	15	50	9	16	27
26	21	10	9	12	52	10	0	18	9	25	26	10	13	35	10	20	44	9	17	09	9	17	54
28	23	10	9	13	04	10	0	46	9	27	00	10	15	36	10	23	14	9	18	43	9	19	35
Mar. 2	25	10	9	13	17	10	1	14	9	28	34	10	17	36	10	25	44	9	20	31	9	21	29
4	28	10	9	13	30	10	1	42	10	0	08	10	19	36	10	28	14	9	22	30	9	22	33
6	30	10	9	13	42	10	2	10	10	1	42	10	21	37	11	0	44	9	24	39	9	25	47
8	2	11	9	13	54	10	2	38	10	3	16	10	23	37	11	3	13	9	26	57	9	28	10
10	5	11	9	14	06	10	3	06	10	4	r51	10	25	37	11	5	43	9	29	24	10	0	40
12	7	11	9	14	18	10	3	34	10	6	25	10	27	37	11	8	12	10	1	57	10	3	16
14	9	11	9	14	30	10	4	01	10	7	59	10	29	36	11	10	42	10	4	37	10	6	00
16	11	11	9	14	41	10	4	28	10	9	33	11	1	36	11	13	11	10	7	24	10	8	49
18	12	11	9	14	52	10	4	55	10	11	07	11	3	35	11	15	40	10	10	16	10	11	44
20	14	11	9	15	03	10	5	22	10	12	41	11	5	35	11	18	09	10	13	13	10	14	44
22	16	11	9	15	13	10	5	49	10	14	16	11	7	34	11	20	38	10	16	17	10	17	50
24	18	11	9	15	24	10	6	15	10	15	50	11	9	33	11	23	07	10	19	s25	10	21	01
26	20	11	9	15	34	10	6	41	10	17	24	11	11	32	11	25	35	10	22	39	10	24	18
28	22	11	9	15	44	10	7	07	10	18	58	11	13	30	11	28	04	10	25	58	10	27	40
30	24	11	9	15	53	10	7	33	10	20	32	11	15	29	0	0	32	10	29	23	11	1	07
Apr. 1	26	11	9	16	03	10	7	59	10	22	06	11	17	28	0	3	01	11	2	53	11	4	40
3	28	11	9	16	11	10	8	24	10	23	39	11	19	26	0	5	29	11	6	29	11	8	19
5	1	12	9	16	20	10	8	49	10	25	13	11	21	24	0	7	57	11	10	10	11	12	03
7	3	12	9	16	29	10	9	13	10	26	47	11	23	22	0	10	25	11	13	57	11	15	53
9	5	12	9	16	37	10	9	38	10	28	21	11	25	20	0	12	53	11	17	50	11	19	48
11	7	12	9	16	44	10	10	02	10	29	54	11	27	18	0	15	21	11	21	48	11	23	48
13	9	12	9	16	52	10	10	25	11	1	28	11	29	16	0	17	49	11	25	52	11	27	55
15	11	12	9	16	59	10	10	49	11	3	01	0	1	13	0	20	16	0	0	00	0	2	☌05
17	13	12	9	17	06	10	11	12	11	4	34	0	3	11	0	22	44	0	4	11	0	6	18

Ayanamsa on 1st Jan. : 23° 19′ 23″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		शा ♄ श			बृ ♃ बृ			मं ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.17	13	12	9	17	06	10	11	12	11	4	34	0	3	11	0	22	44	0	4s	11	0	6	18
19	15	12	9	17	12	10	11	34	11	6	07	0	5	08	0	25	11	0	8	26	0	10	33
21	16	12	9	17	18	10	11	57	11	7	41	0	7	05	0	27	38	0	12	40	0	14	47
23	18	12	9	17	24	10	12	18	11	9	13	0	9	02	1	0	05	0	16	54	0	18	59
25	20	12	9	17	29	10	12	40	11	10	46	0	10	59	1	2	32	0	21	03	0	23r	06
27	22	12	9	17	34	10	13	01	11	12	19	0	12	56	1	4	58	0	25	06	0	27	05
29	25	12	9	17	39	10	13	22	11	13	52	0	14	52	1	7	25	0	29	01	1	0	54
May 1	27	12	9	17	43	10	13	42	11	15	24	0	16	49	1	9	51	1	2	44	1	4	31
3	29	12	9	17	47	10	14	02	11	16	56	0	18	46	1	12	18	1	6	15	1	7	55
5	1	1	9	17	50	10	14	21	11	18	29	0	20	42	1	14	44	1	9	31	1	11	04
7	4	1	9	17	53	10	14	40	11	20	00	0	22	38	1	17	10	1	12	33	1	13	58
9	6	1	9	17	56	10	14	58	11	21	32	0	24	34	1	19	36	1	15	19	1	16	36
11	8	1	9	17	58	10	15	16	11	23	04	0	26	30	1	22	01	1	17	49	1	18	58
13	9	1	9	18	00	10	15	33	11	24	35	0	28	26	1	24	27	1	20	02	1	21	02
15	11	1	9	18	02	10	15	50	11	26	07	1	0	22	1	26	52	1	21	58	1	22	49
17	13	1	9	18	03	10	16	06	11	27	38	1	2	17	1	29	17	1	23	35	1	24	17
19	15	1	9	18	04	10	16	22	11	29	09	1	4	13	2	1	42	1	24	55	1	25	28
21	17	1	9R	18	04	10	16	37	0	0	40	1	6	08	2	4	07	1	25	56	1	26	19
23	19	1	9	18	04	10	16	51	0	2	10	1	8	04	2	6	32	1	26	37	1	26	51
25	21	1	9	18	04	10	17	05	0	3	41	1	9	59	2	8	56	1	27	00	1R	27	04
27	23	1	9	18	03	10	17	19	0	5	11	1	11	54	2	11	21	1	27	03	1	26	58
29	25	1	9	18	02	10	17	31	0	6	41	1	13	49	2	13	45	1	26	49	1	26s	35
31	28	1	9	18	00	10	17	43	0	8	10	1	15	45	2	16	09	1	26	18	1	25	57
June 2	30	1	9	17	58	10	17	55	0	9	40	1	17	40	2	18	33	1	25	32	1	25	05
4	2	2	9	17	56	10	18	06	0	11	09	1	19	35	2	20	56	1	24	36	1	24	05
6	4	2	9	17	53	10	18	16	0	12	39	1	21	29	2	23	20	1	23	32	1	22	59
8	6	2	9	17	50	10	18	25	0	14	07	1	23	24	2	25	43	1	22	25	1	21	52
10	8	2	9	17	47	10	18	34	0	15	36	1	25	19	2	28	06	1	21	20	1	20	49
12	10	2	9	17	43	10	18	42	0	17	04	1	27	14	3	0	28	1	20	20	1	19	54
14	11	2	9	17	39	10	18	49	0	18	33	1	29	08	3	2	51	1	19	31	1	19	11
16	13	2	9	17	34	10	18	56	0	20	01	2	1	03	3	5	13	1	18	55	1	18	43
18	15	2	9	17	29	10	19	02	0	21	28	2	2	58	3	7	35	1	18r	35	1D	18	31
20	18	2	9	17	24	10	19	07	0	22	56	2	4	52	3	9	57	1	18	32	1	18	37
22	20	2	9	17	19	10	19	11	0	24	23	2	6	46	3	12	18	1	18	47	1	19	02
24	22	2	9	17	13	10	19	15	0	25	50	2	8	41	3	14	39	1	19	22	1	19	46
26	24	2	9	17	07	10	19	18	0	27	17	2	10	35	3	17	00	1	20	15	1	20	48
28	26	2	9	17	01	10	19	20	0	28	43	2	12	30	3	19	20	1	21	26	1	22	09
30	28	2	9	16	54	10	19	21	1	0	09	2	14	24	3	21	41	1	22	56	1	23	47
July 2	1	3	9	16	47	10R	19	22	1	1	35	2	16	19	3	24	01	1	24	43	1	25	43
4	2	3	9	16	40	10	19	21	1	3	01	2	18	13	3	26	20	1	26	47	1	27	55
6	4	3	9	16	33	10	19	20	1	4	26	2	20	08	3	28	40	1	29	08	2	0	25
8	6	3	9	16	25	10	19	18	1	5	51	2	22	02	4	0	59	2	1	45	2	3	10
10	8	3	9	16	17	10	19	16	1	7	16	2	23	56	4	3	17	2	4	38	2	6	10
12	10	3	9	16	10	10	19	13	1	8	40	2	25	51	4	5	35	2	7	46	2	9	26
14	12	3	9	16	01	10	19	08	1	10	04	2	27	45	4	7	53	2	11	09	2	12	55
16	14	3	9	15	53	10	19	04	1	11	28	2	29	40	4	10	11	2	14	45	2	16	37
18	16	3	9	15	45	10	18	58	1	12	52	3	1	34	4	12	27	2	18s	32	2	20	30
20	18	3	9	15	36	10	18	52	1	14	15	3	3	29	4	14	44	2	22	30	2	24	32
22	21	3	9	15	27	10	18	44	1	15	38	3	5	23	4	17	00	2	26	36	2	28	41
24	23	3	9	15	19	10	18	37	1	17	01	3	7	18	4	19	15	3	0	47	3	2	53
26	25	3	9	15	10	10	18	28	1	18	23	3	9	12	4	21	30	3	5	00	3	7	07
28	27	3	9	15	01	10	18	19	1	19	45	3	11	07	4	23	45	3	9	14	3	11	21
30	29	3	9	14s	52	10	18	09	1	21	07	3	13	02	4	25	59	3	13	27	3	15	32
Aug. 1	1	4	9	14	43	10	17	59	1	22	28	3	14	57	4	28	12	3	17	35	3	19	38

Ayanamsa on 1st Jan. : 23° 19′ 23″

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	1	4	9 R 14 43	10 R 17 59	1 22 28	3 14 57	4 28 12	3 17s35	3 19 38
3	3	4	9 14 34	10 17 48	1 23 49	3 16 51	5 0 24	3 21 40	3 23 40
5	5	4	9 14 25	10 17 36	1 25 10	3 18 46	5 2 37	3 25 39	3 27 36
7	6	4	9 14 16	10 17 24	1 26 30	3 20 41	5 4 48	3 29 32	4 1 27
9	8	4	9 14 08	10 17 11	1 27 50	3 22 36	5 6 59	4 3 19	4 5 11
11	10	4	9 13 59	10 16 58	1 29 10	3 24 31	5 9 08	4 7 01	4 8 49
13	12	4	9 13 50	10 16 44	2 0 29	3 26 27	5 11 17	4 10 36	4 12 21
15	15	4	9 13 42	10 16 30	2 1 48	3 28 22	5 13 26	4 14r05	4 15 47
17	17	4	9 13 33	10 16 16	2 3 07	4 0 17	5 15 33	4 17 28	4 19 07
19	19	4	9 13 25	10 16 01	2 4 25	4 2 12	5 17 39	4 20 45	4 22 22
21	21	4	9 13 17	10 15 46	2 5 43	4 4 08	5 19 44	4 23 57	4 25 30
23	24	4	9 13 09	10 15 31	2 7 00	4 6 03	5 21 49	4 27 03	4 28 34
25	26	4	9 13 01	10 15 15	2 8 17	4 7 59	5 23 52	5 0 03	5 1 31
27	28	4	9 12 54	10 14 59	2 9 34	4 9 55	5 25 54	5 2 57	5 4 22
29	29	4	9 12 47	10 14 44	2 10 50	4 11 51	5 27 54	5 5 46	5 7 08
31	1	5	9 12 39	10 14☍28	2 12 06	4 13 47	5 29 54	5 8 28	5 9 47
Sept. 2	3	5	9 12 33	10 14 12	2 13 21	4 15 43	6 1 52	5 11 04	5 12 20
4	5	5	9 12 26	10 13 56	2 14 36	4 17 39	6 3 48	5 12 34	5 14 46
6	7	5	9 12 20	10 13 40	2 15 50	4 19 36	6 5 43	5 15 56	5 17 04
8	9	5	9 12 14	10 13 25	2 17 04	4 21 32	6 7 36	5 18 10	5 19 13
10	11	5	9 12 08	10 13 09	2 18 18	4 23 29	6 9 27	5 20 15	5 21 13
12	13	5	9 12 03	10 12 54	2 19 31	4 25 25	6 11 16	5 22 09	5 23 03
14	15	5	9 11 58	10 12 39	2 20 43	4 27 22	6 13 03	5 23 53	5 24 40
16	18	5	9 11 53	10 12 24	2 21 55	4 29 19	6 14 47	5 25 23	5 26 03
18	20	5	9 11 49	10 12 10	2 23 07	5 1 16	6 16 29	5 26 38	5 27 09
20	22	5	9 11 45	10 11 56	2 24 18	5 3 13	6 18 08	5 27 36	5 27 57
22	24	5	9 11 41	10 11 43	2 25 29	5 5 11	6 19 45	5 28 13	5 28 23
24	26	5	9 11 38	10 11 30	2 26 39	5 7 08	6 21 18	5 R 28 27	5 28 24
26	28	5	9 11 35	10 11 17	2 27 48	5 9 06	6 22 47	5 28s14	5 27 57
28	30	5	9 11 33	10 11 05	2 28 57	5 11 03	6 24 13	5 27 33	5 27 01
30	2	6	9 11 30	10 10 54	3 0 05	5 13 01	6 25 35	5 26 21	5 25 35
Oct. 2	3	6	9 11 29	10 10 43	3 1 13	5 14 59	6 26 53	5 24 42	5 23 42
4	5	6	9 11 27	10 10 33	3 2 19	5 16 57	6 28 06	5 22 38	5 21 31
6	7	6	9 11 26	10 10 24	3 3 26	5 18 56	6 29 14	5 20☌21	5 19 11
8	9	6	9 11 26	10 10 15	3 4 31	5 20 54	7 0 16	5 18 03	5 16 58
10	11	6	9 D 11 26	10 10 07	3 5 36	5 22 53	7 1 12	5 15 59	5 15r06
12	14	6	9 11 26	10 10 00	3 6 40	5 24 51	7 2 02	5 14 23	5 13 49
14	16	6	9 11 27	10 9 53	3 7 44	5 26 50	7 2 45	5 13 26	5 D 13 13
16	18	6	9 11 28	10 9 47	3 8 46	5 28 49	7 3 20	5 13 12	5 13 21
18	21	6	9 11 29	10 9 42	3 9 48	6 0 48	7 3 47	5 13 41	5 14 11
20	23	6	9 11 31	10 9 38	3 10 49	6 2 47	7 4 06	5 14 50	5 15 38
22	25	6	9 11 33	10 9 35	3 11 49	6 4 46	7 R 4 16	5 16 34	5 17 36
24	26	6	9 11 36	10 9 32	3 12 48	6 6 46	7 4 17	5 18 44	5 19 58
26	28	6	9 11 39	10 9 30	3 13 47	6 8 45	7 4 08	5 21 16	5 22 38
28	30	6	9 11 42	10 9 29	3 14 44	6 10 45	7 3 50	5 24 03	5 25 31
30	2	7	9 11 46	10 D 9 29	3 15 41	6 12 45	7 3 22	5 27 01	5 28 33
Nov. 1	4	7	9 11 51	10 9 30	3 16 36	6 14 45	7 2 45	6 0 07	6 1 42
3	6	7	9 11 55	10 · 31	3 17 30	6 16 45	7 1s58	6 2 17	6 4 54
5	8	7	9 12 00	10 9 33	3 18 23	6 18 46	7 1 04	6 6s30	6 8 08
7	10	7	9 12 06	10 9 37	3 19 15	6 20 46	7 0 03	6 9 45	6 11 23
9	12	7	9 12 11	10 9 40	3 20 06	6 22 46	6 28 56	6 13 00	6 14 38
11	14	7	9 12 18	10 9 45	3 20 55	6 24 47	6 27 45	6 16 16	6 17 53
13	17	7	9 12 24	10 9 51	3 21 43	6 26 47	6 26☌32	6 19 30	6 21 07
15	19	7	9 12 31	10 9 57	3 22 30	6 28 48	6 25 19	6 22 44	6 24 21

1962 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I S.T. ♄ श शा	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	19 7	9 12 31	10 9 57	3 22 30	6 28 48	6*R*25s19	6 22s44	6 24 21
17	21 7	9 12 38	10 10 04	3 23 16	7 0 49	6 24r08	6 25 57	6 27 33
19	23 7	9 12 46	10 10 12	3 23 59	7 2 50	6 23 01	6 29 09	7 0 45
21	25 7	9 12 53	10 10 20	3 24 42	7 4 51	6 22 00	7 2 20	7 3 56
23	27 7	9 13 02	10 10 29	3 25 23	7 6 53	6 21 07	7 5 31	7 7 08
25	28 7	9 13 10	10 10 40	3 26 02	7 8 54	6 20 21	7 8☉40	7 10 15
27	30 7	9 13 19	10 10 50	3 26 39	7 10 55	6 19 44	7 11 49	7 13 24
29	2 8	9 13 28	10 11 02	3 27 14	7 12 57	6 19 17	7 14 58	7 16 32
Dec. 1	4 8	9 13 38	10 11 14	3 27 47	7 14 58	6 19 00	7 18 06	7 19 40
3	6 8	9 13 47	10 11 27	3 28 19	7 1[illegible] 0[illegible]	6D18 53	7 21 14	7 22 48
5	8 8	9 13 57	10 11 40	3 28 48	7 19 02	6 18 56	7 24 21	7 25 55
7	11 8	9 14 08	10 11 54	3 29 15	7 21 04	6 19 08	7 27 29	7 29 03
9	13 8	9 14 18	10 12 09	3 29 40	7 23 06	6 19 29	8 0 37	8 2 11
11	15 8	9 14 29	10 12 25	4 0 03	7 25 07	9 19 59	8 3 44	8 5 18
13	17 8	9 14 40	10 12 41	4 0 23	7 27 09	6 20 37	8 6 52	8 8 26
15	19 8	9 14 51	10 12 57	4 0 41	7 29 11	6 21 22	8 10 00	8 11 34
17	21 8	9 15 03	10 13 14	4 0 56	8 1 13	6 22 15	8 13 07	8 14 41
19	23 8	9 15 15	10 13 32	4 1 08	8 3 16	6 23 15	8 16 15	8 17r48
21	25 8	9 15 27	10 13 50	4 1 17	8 5 18	6 24 21	8 19 21	8 20 53
23	27 8	9 15 39	10 14 09	4 1 24	8 7 20	6 25 33	8 22 25	8 23 57
25	29 8	9 15 51	10 14 29	4R1 27	8 9 22	6 26 50	8 25 28	8 26 57
27	1 9	9 16 04	10 14 48	4 1 28	8 11 25	6 28 12	8 28 26	8 29 53
29	3 9	9 16 16	10 15 09	4 1 25	8 13 27	6 29 38	9 1r19	9 2 42
31	5 9	9 16 29	10 15 30	4 1 19	8 15 29	7 1 09	9 4 03	9 5 21
Jan. 2	7 9	9 16 42	10 15 51	4 1 10	8 17 32	7 2 43	9 6 36	9 7 47

Longitudes of Rahu, Uranus, Neptune, and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	3 25 4	3 26 41	4 *R* 6 55	6 19 38	4*R*16 42	23 19 23
February 1	3 24 36	3 25 3	4 5 53	6R20 7	4 16 11	23 19 28
March 1	3 24 36	3 23 34	4 4 41	6 20 6	4 15 29	23 19 31
April 1	3 23 19	3 21 55	4 3 32	6 19 38	4 14 44	23 19 34
May 1	3 20 24	3 20 20	4 3 5	6 18 52	4 14 17	23 19 37
June 1	3 17 15	3 18 41	4 D 3 24	6 18 3	4D14 14	23 19 41
July 1	3 15 40	3 17 6	4 4 28	6 17 31	4 14 39	23 19 46
August 1	3 15 30	3 15 27	4 6 7	6D17 24	4 15 26	23 19 51
September 1	3 15 21	3 13 49	4 8 2	6 17 48	4 16 28	23 19 54
October 1	3 13 45	3 12 13	4 9 49	6 18 36	4 17 29	23 19 57
November 1	3 10 28	3 10 35	4 11 14	6 19 42	4 18 20	23 20 00
December 1	3 7 28	3 8 59	4R11 56	6 20 48	4R18 46	23 20 04
January 1	3 6 16	3 7 21	4 11 46	6 21 44	4 18 45	23 20 10

Combustion or Heliacal Setting of Planets

Saturn :	From Jan. 8 to Feb. 9
Jupiter :	From Jan. 28 to Feb. 24.
Mars :	From Oct. 9 ('61) to Mar. 10
Venus :	From Dec. 30 ('61) to Feb. 21, Nov. 4 to Nov. 16.
Mercury :	Upto Jan. 7, then from Jan. 31 to Feb. 10, Mar. 24 to Apr. 26, May 30 to June 18, July 18 to Aug. 15, Sept. 26 to Oct. 11, Nov. 5 to Dec. 20

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Jan. 27,	20	59	9	29	29	Feb. 17,	27	19	9	13	55
	May 26,	14	44	1	27	04	June 19,	13	13	1	18	31
	Sept. 24,	7	11	5	28	27	Oct. 15,	20	38	5	13	11
Venus	Oct. 23,	9	43	7	4	18	Dec. 3,	16	58	6	18	53
Mars	Dec. 26,	11	42	4	1	28	—	—			—	
Jupiter	July 2,	14	27	10	19	22	Oct. 29,	16	08	10	9	29
Saturn	May 21,	28	53	9	18	04	Oct. 9,	21	54	9	11	26
Uranus	— Dec. 11,	— 10	29	4	— 11	58	May 4, —	14 —	22	4	3	04
Neptune	Feb. 13,	25	34	6	20	10	July 23,	12	48	6	— 17	23
Pluto	— Dec. 14,	— 26	45	4	— 18	49	May 19, —	15 —	14	4	14 —	12

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	6	18	5	Pauṣa	Sukla	Jan.	20	23	46	Māgha	Vadi
Feb.	5	5	40	Māgha	,,	Feb.	19	16	48	Phālguna	,,
Mar.	6	16	1	Phālguna	,,	Mar.	21	13	25	Caitra	,,
Apr.	4	25	15	Caitra	,,	Apr.	20	6	3	Vaiśākha	,,
May	4	9	55	Vaiśākha	,,	May	19	20	2	Jyaiṣṭha	,,
June	2	18	57	Jyaiṣṭha	,,	June	18	7	32	Āṣāḍha	,,
July	1	29	22	Āṣāḍha	,,	July	17	17	11	Śrāvaṇa	,,
July	31	17	54	Śrāvaṇa	,,	Aug.	15	25	39	Bhādra	,,
Aug.	30	8	39	Bhādra	,,	Sept.	14	9	41	Āśvina	,,
Sept.	28	25	9	Āśvina	,,	Oct.	13	18	3	Kārtika	,,
Oct.	28	18	35	Kārtika	,,	Nov.	11	27	33	Agraha.	,,
Nov.	27	11	59	Mārga.	,,	Dec.	11	14	57	Pauṣa	,,
Dec.	26	28	29	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	29	4	Karkaṭa	on	July	16	14	1
Kumbha	on	Feb.	12	18	4	Siṁha	on	Aug.	16	22	25
Mina	on	Mar.	14	14	58	Kanyā	on	Sept.	16	22	19
Meṣa	on	Apr.	13	23	30	Tulā	on	Oct.	17	10	13
Vṛṣa	on	May	14	20	27	Vṛścika	on	Nov.	16	10	0
Mithuna	on	June	14	27	7	Dhanus	on	Dec.	15	24	38

Saka era 1884-85, Saṁvat 2019-20 (Mar. 26, Oct. 18), B.S. 1369-70 (Apr. 15),
Kollam era 1138-39 (Aug. 17), 37 Sobhana (Mar. 26, Apr. 14)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec. 30	14	9	9	22	7	10	5	54	10	19	49	11	3	51	11	17	59	0	2	11	0	16	25
Jan. 6	21	9	1	0	38	1	14	46	1	28	46	2	12	34	2	26	7	3	9	24	3	22	22
13	28	9	4	5	2	4	17	26	4	29	37	5	11	37	5	23	30	6	5	23	6	17	18
20	6	10	6	29	22	7	11	38	7	24	9	8	7	0	8	20	10	9	3	41	9	17	30
27	17	10	10	1	35	10	15	51	11	0	13	11	14	38	11	28	59	0	13	14	0	27	20
Feb. 3	20	10	1	11	15	1	24	59	2	8	32	2	21	52	3	4	59	3	17	54	4	0	36
10	27	10	4	13	6	4	25	23	5	7	31	5	19	30	6	1	24	6	13	16	6	25	10
17	4	11	7	7	12	7	19	24	8	1	54	8	14	43	8	27	57	9	11	37	9	25	41
24	11	11	10	10	8	10	24	51	11	9	43	11	24	35	0	9	20	0	23	50	1	8	3
Mar. 3	18	11	1	21	55	2	5	28	2	18	44	3	1	43	3	14	29	3	27	3	4	9	28
10	25	11	4	21	43	5	3	51	5	15	53	5	27	49	6	9	42	6	21	34	7	3	27
17	3	12	7	15	27	7	27	36	8	10	1	8	22	45	9	5	54	9	19	31	10	3	37
24	10	12	10	18	11	11	3	7	11	18	18	0	3	32	0	18	39	1	3	29	1	17	56
31	17	12	2	1	58	2	15	33	2	28	44	3	11	34	3	24	8	4	6	29	4	18	41
Apr. 7	24	12	5	0	45	5	12	44	5	24	40	6	6	33	6	18	25	7	0	18	7	12	14
14	31	12	7	24	16	8	6	26	8	18	49	9	1	30	9	14	34	9	28	3	10	12	1
21	7	1	10	26	28	11	11	21	11	26	33	0	11	53	0	27	9	1	12	12	1	26	52
28	14	1	2	11	5	2	24	48	3	8	4	3	20	56	4	3	28	4	15	44	4	27	49
May 5	21	1	5	9	48	5	21	41	6	3	34	6	15	26	6	27	21	7	9	18	7	21	20
12	28	1	8	3	29	8	15	47	8	28	16	9	11	1	9	24	4	10	7	30	10	21	20
19	4	2	11	5	35	11	20	13	0	5	11	0	20	19	1	5	28	1	20	28	2	5	10
26	11	2	2	19	27	3	3	17	3	16	40	3	29	37	4	12	12	4	24	30	5	6	35
June 2	18	2	5	18	32	6	0	25	6	12	17	6	24	11	7	6	9	7	18	14	8	0	27
9	25	2	8	12	48	8	25	20	9	8	4	9	21	1	10	4	14	10	17	44	11	1	32
16	1	3	11	15	39	0	0	2	0	14	40	0	29	25	1	14	13	1	28	55	2	13	24
23	8	3	2	27	34	3	11	22	3	24	45	4	7	46	4	20	25	5	2	46	5	14	53
30	15	3	5	26	51	6	8	44	6	20	37	7	2	34	7	14	37	7	26	50	8	9	14
July 7	22	3	8	21	51	9	4	43	9	17	48	10	1	7	10	14	39	10	28	24	11	12	20
14	29	3	11	26	26	0	10	41	0	25	1	1	9	23	1	23	44	2	7	59	2	22	5
21	4	4	3	5	57	3	19	31	4	2	47	4	15	44	4	28	22	5	10	44	5	22	52
28	11	4	6	4	51	6	16	45	6	28	38	7	10	35	7	22	41	8	5	0	8	17	34
Aug. 4	18	4	9	0	25	9	13	36	9	27	5	10	10	50	10	24	49	11	8	57	11	23	12
11	25	4	0	7	28	0	21	44	1	5	55	1	20	0	2	3	58	2	17	47	3	1	26
18	1	5	3	14	53	3	28	8	4	11	9	4	23	55	5	6	26	5	18	44	6	0	50
25	8	5	6	12	48	6	24	40	7	6	32	7	18	28	8	0	33	8	12	53	8	25	31
Sept. 1	15	5	9	8	31	9	21	55	10	5	43	10	19	52	11	4	19	11	18	55	0	3	35
8	22	5	0	18	11	1	2	38	1	16	51	2	0	50	2	14	34	2	28	4	3	11	20
15	29	5	3	24	25	4	7	18	4	20	0	5	2	31	5	14	52	5	27	02	6	9	4
22	5	6	6	20	58	7	2	48	7	14	37	7	26	31	8	8	33	8	20	49	9	3	25
29	12	6	9	16	25	9	29	53	10	13	49	10	28	12	11	12	58	11	27	58	0	13	3
Oct. 6	19	6	0	28	2	1	12	47	1	27	14	2	11	18	2	25	0	3	8	22	3	21	26
13	26	6	4	4	14	4	16	51	4	29	16	5	11	33	5	23	41	6	5	43	6	17	39
20	2	7	6	29	30	7	11	18	7	23	7	8	4	59	8	17	0	8	29	13	9	11	44
27	9	7	9	24	39	10	8	1	10	21	53	11	6	15	11	21	4	0	6	12	0	21	30
Nov. 3	16	7	1	6	47	1	21	51	2	6	34	2	20	52	3	4	44	3	18	9	4	1	12
10	23	7	4	13	55	4	26	22	5	8	37	5	20	43	6	2	42	6	14	37	6	26	28
17	30	7	7	8	18	7	20	8	8	2	0	8	13	56	8	26	1	9	8	16	9	20	47
24	7	8	10	3	38	10	16	53	11	0	34	11	14	43	11	29	19	0	14	17	0	29	30
Dec. 1	14	8	1	14	46	1	29	56	2	14	51	2	29	22	3	13	26	3	27	3	4	10	13
8	21	8	4	22	59	5	5	27	5	17	39	5	29	40	6	11	34	6	23	24	7	5	14
15	28	8	7	17	5	7	28	59	8	10	59	8	23	6	9	5	22	9	17	50	10	0	30
22	6	9	10	13	26	10	26	41	11	10	16	11	24	12	0	8	29	0	23	5	1	7	55
29	13	9	1	22	52	2	7	49	2	22	38	3	7	10	3	21	20	4	5	5	4	18	24
Jan. 5	20	9	5	1	18	5	13	50	5	26	5	6	8	7	6	20	0	7	1	49	7	13	38

Ayanamsa on 1st Jan. : 23° 20′ 10″

Nirayana **Longitudes at 5-30 A.M. I.S.T.**

Date	Tithi & Month		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	6	9	9	16	36	10	15	40	4R	1	15	8	16	30	7	1	55	9	5	21	9	6	56
3	8	9	9	16	49	10	16	02	4	1	04	8	18	33	7	3	31	9	7	47	9	8	53
5	10	9	9	17	02	10	16	24	4	0	50	8	20	35	7	5	11	9	9	54	9	10	49
7	12	9	9	17	16	10	16	46	4	0	32	8	22	37	7	6	54	9	11	37	9	12	17
9	14	9	9	17	29	10	17	09	4	0	12	8	24	40	7	8	39	9	12	48	9	13	09
11	17	9	9	17	43	10	17	32	3	29	48	8	26	42	7	10	28	9R	13	20	9	13	20
13	19	9	9	17	57	10	17	55	3	29	21	8	28	44	7	12	18	9	13	09	9	12	45
15	20	9	9	18	11	10	18	19	3	28	51	9	0	46	7	14	12	9	12s	10	9	11	24
17	22	9	9	18	25	10	18	44	3	28	19	9	2	48	7	16	07	9	10	27	9	9	23
19	24	9	9	18s	39	10	19	08	3	27	43	9	4	51	7	18	04	9	8	11	9	6☌	56
21	26	9	9	18	53	10	19	33	3	27	05	9	6	53	7	20	04	9	5	38	9	4	21
23	28	9	9	19	07	10	19	58	3	26	24	9	8	55	7	22	04	9	3	07	9	1r	57
25	30	9	9	19	21	10	20	24	3	25	42	9	10	57	7	24	07	9	0	53	8	29	57
27	2	10	9	19	36	10	20	50	3	24	57	9	12	59	7	25	11	8	29	09	8	28	30
29	4	10	9	19	50	10	21	16	3	24	11	9	15	01	7	28	16	8	28	00	8	27	38
31	6	10	9	20	04	10	21	42	3	23	24	9	17	03	8	0	23	8	27	25	8D	27	21
Feb. 2	9	10	9	20	19	10	22	09	3	22	37	9	19	05	8	2	30	8	27	24	8	27	34
4	11	10	9	20☌	33	10	22	35	3	21☍	49	9	21	06	8	4	39	8	27	51	8	28	15
6	13	10	9	20	47	10	23	02	3	21	01	9	23	08	8	6	49	8	28	44	8	29	18
8	15	10	9	21	02	10	23	30	3	20	13	9	25	10	8	9	00	8	29	57	9	0	40
10	17	10	9	21	16	10	23	57	3	19	26	9	27	11	8	11	11	9	1	27	9	2	18
12	19	10	9	21	30	10	24	25	3	18	41	9	29	12	8	13	24	9	3	12	9	4	10
14	21	10	9	21	45	10	24	53	3	17	56	10	1	14	8	15	37	9	5	10	9	6	12
16	22	10	9	21	59	10	25	20	3	17	13	10	3	15	8	17	51	9	7	18	9	8	25
18	24	10	9	22	13	10	25	49	3	16	33	10	5	16	8	20	06	9	9	34	9	10	46
20	26	10	9	22	27	10	26	17	3	15	54	10	7	17	8	22	22	9	11	59	9	13	14
22	28	10	9	2	r41	10	26	45	3	15	18	10	9	18	8	24	38	9	14	31	9	15	49
24	30	10	9	22	55	10	27	14	3	14	45	10	11	19	8	26	55	9	17	08	9	18	29
26	3	11	9	23	09	10	27	42	3	14	15	10	13	20	8	29	12	9	19	52	9	21	16
28	5	11	9	23	23	10	28	11	3	13	47	10	15	20	9	1	29	9	22	40	9	24	07
Mar. 2	7	11	9	23	36	10	28	40	3	13	23	10	17	21	9	3	47	9	25	34	9	27	03
4	9	11	9	23	50	10	29s	09	3	13	01	10	19	21	9	6	06	9	28	32	10	0	03
6	11	11	9	24	03	10	29	38	3	12	43	10	21	21	9	8	25	10	1	35	10	3s	08
8	13	11	9	24	17	11	0	07	3	12	29	10	23	22	9	10	44	10	4	42	10	6	18
10	15	11	9	24	30	11	0	36	3	12	17	10	25	21	9	13	04	10	7	14	10	9	32
12	17	11	9	24	43	11	1	05	3	12	08	10	27	21	9	15	24	10	11	11	10	12	51
14	19	11	9	24	5[illegible]	11	1	34	3	12	02	10	29	21	9	17	44	10	14	32	10	16	14
16	21	11	9	25	08	11	2☌	03	3D	12	00	11	1	21	9	20	05	10	17	58	10	19	43
18	23	11	9	25	20	11	2	32	3	12	00	11	3	20	9	22	26	10	21	29	10	23	16
20	24	11	9	25	33	11	3	01	3	12	04	11	5	19	9	24	47	10	25	04	10	26	54
22	27	11	9	25	45	11	3	30	3	12	10	11	7	19	9	27	08	10	28	45	11	0	37
24	29	11	9	25	57	11	3	59	3	12	19	11	9	18	9	29	30	11	2	30	11	4	25
26	1	12	9	26	08	11	4	28	3	12	30	11	11	17	10	1	52	11	6	21	11	8	18
28	3	12	9	26	20	11	4	57	3	12	44	11	13	16	10	4	14	11	10	16	11	12	16
30	6	12	9	26	31	11	5	26	3	13	01	11	15	14	10	6	37	11	14☌	16	11	16	18
Apr. 1	8	12	9	26	42	11	5	55	3	13	20	11	17	13	10	8	59	11	18	20	11	20	23
3	10	12	9	26	52	11	6	23	3	13	41	11	19	11	10	11	22	11	22	27	11	24	31
5	12	12	9	27	03	11	6r	52	3	14	04	11	21	09	10	13	45	11	26	35	11	28	39
7	14	12	9	27	13	11	7	21	3	14	30	11	23	07	10	16	08	0	0	43	0	2	46
9	15	12	9	27	23	11	7	49	3	14	57	11	25	05	10	18	31	0	4	48	0	6	49
11	17	12	9	27	33	11	8	17	3	15	27	11	27	03	10	20	54	0	8r	49	0	10	46
13	19	12	9	27	42	11	8	45	3	15	58	11	29	01	10	23	18	0	12	41	0	14	33
15	21	12	9	27	51	11	9	14	3	16	31	0	0	58	10	25	41	0	16	23	0	18	09
17	23	12	9	28	00	11	9	41	3	17	06	0	2	56	10	28	05	0	19	51	0	21	30

Ayanamsa on 1st Jan. : 23° 20′ 10″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month	श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	23 12	9 28 00	11 9 41	3 17 06	0 2 56	10 28 05	0 19 51	0 21 30
19	25 12	9 28 08	11 10 09	3 17 42	0 4 53	11 0 29	0 23 04	0 24 34
21	27 12	9 28 16	11 10 37	3 18 20	0 6 50	11 2 53	0 26 00	0 27 21
23	29 12	9 28 24	11 11 04	3 18 59	0 8 47	11 5 17	0 28 37	0 29 48
25	2 1	9 28 32	11 11 31	3 19 40	0 10 44	11 7 41	1 0 55	1 1 56
27	4 1	9 28 39	11 11 59	3 20 23	0 12 41	11 10 05	1 2 52	1 3 43
29	6 1	9 28 46	11 12 25	3 21 06	0 14 38	11 12 29	1 4 28	1 5 08
May 1	8 1	9 28 52	11 12 52	3 21 51	0 16 35	11 14 53	1 5 43	1 6 12
3	10 1	9 28 58	11 13 18	3 22 37	0 18 31	11 17 18	1 6 36	1 6 54
5	12 1	9 29 04	11 13 45	3 23 24	0 20 27	11 19 42	1 7 07	1R 1 14
7	14 1	9 29 10	11 14 10	3 24 12	0 22 23	11 22 07	1 7 17	1 7 14
9	16 1	9 29 15	11 14 36	3 25 01	0 24 20	11 24 31	1 7 06	1 6 54
11	18 1	9 29 19	11 15 01	3 25 52	0 26 15	11 26 56	1 6s37	1 6 16
13	19 1	9 29 24	11 15 27	3 26 43	0 28 11	11 29 21	1 5 52	1 5 24
15	21 1	9 29 28	11 15 51	3 27 35	1 0 07	0 1 46	1 4 54	1 4 22
17	23 1	9 29 31	11 16 16	3 28 28	1 2 03	0 4 10	1 3 48	1 3s13
19	26 1	9 29 35	11 16 40	3 29 22	1 3 58	0 6 35	1 2 38	2 03
21	28 1	9 29 37	11 17 04	4 0 17	1 5 54	0 9 00	1 1 29	1 0 57
23	30 1	9 29 40	11 17 27	4 1 12	1 7 49	0 11 26	1 0 27	0 29 59
25	3 2	9 29 42	11 17 51	4 2 09	1 9 45	0 13 51	0 29 34	0 29 12
27	5 2	9 29 43	11 18 13	4 3 06	1 11 40	0 16 16	0 28 54	0 28 40
29	7 2	9 29 45	11 18 36	4 4 04	1 13 35	0 18 41	0 28r30	0D28 25
31	9 2	9 29 46	11 18 58	4 5 02	1 15 30	0 21 06	0 28 24	0 28 27
June 2	11 2	9 29 46	11 19 20	4 6 02	1 17 25	0 23 32	0 28 34	0 28 47
4	12 2	9R29 46	11 19 41	4 7 01	1 19 20	0 25 57	0 29 03	0 29 24
6	14 2	9 29 46	11 20 02	4 8 02	1 21 15	0 28 22	0 29 50	1 0 19
8	16 2	9 29 45	11 20 22	4 9 03	1 23 10	1 0 48	1 0 53	1 1 31
10	18 2	9 29 44	11 20 42	4 10 05	1 25 05	1 3 13	1 2 13	1 2 59
12	20 2	9 29 43	11 21 01	4 11 07	1 26 59	1 5 39	1 3 49	1 4 43
14	22 2	9 29 41	11 21 21	4 12 10	1 28 54	1 8 05	1 5 40	1 6 41
16	24 2	9 29 38	11 21 39	4 13 13	2 0 48	1 10 30	1 7 46	1 8 54
18	26 2	9 29 36	11 21 57	4 14 17	2 2 43	1 12 56	1 10 05	1 11 20
20	29 2	9 29 33	11 22 15	4 15 21	2 4 37	1 15 22	1 12 39	1 14 00
22	1 3	9 29 29	11 22 32	4 16 26	2 6 32	1 17 48	1 15 25	1 16 53
24	3 3	9 29 26	11 22 48	4 17 32	2 8 27	1 20 14	1 18 25	1 19 59
26	5 3	9 29 22	11 23 04	4 18 38	2 10 21	1 22 40	1 21 57	1 23 18
28	7 3	9 29 17	11 23 19	4 19 44	2 12 16	1 25 06	1 25 02	1 26 49
30	9 3	9 29 12	11 23 34	4 20 51	2 14 10	1 27 33	1 28 39	2 0s31
July 2	11 3	9 29 07	11 23 48	4 21 58	2 16 04	1 29 59	2 2 26	2 4 24
4	13 3	9 29 02	11 24 02	4 23 06	2 17 59	2 2 25	2 6 24	2 8 26
6	15 3	9 28 56	11 24 15	4 24 14	2 19 53	2 4 52	2 10 31	2 12 36
8	17 3	9 28 50	11 24 27	4 25 22	2 21 47	2 7 18	2 14 43	2 16 51
10	19 3	9 28 44	11 24 39	4 26 31	2 23 42	2 9 45	2 19 00	2 21 10
12	21 3	9 28 37	11 24 50	4 27 41	2 25 36	2 12 11	2 23 19	2 25s29
14	23 3	9 28 30	11 25 00	4 28 50	2 27 31	2 14 38	2 27 38	2 29 47
16	25 3	9 28 23	11 25 10	5 0 00	2 29 25	2 17 05	3 1 54	3 4 01
18	27 3	9 28 16	11 25 19	5 1 11	3 1 20	2 19 32	3 6 07	3 8 11
20	30 3	9 28 08	11 25 27	5 2 22	3 3 14	2 21 59	3 10 14	3 12 15
22	2 4	9 28 01	11 25 35	5 3 33	3 5 09	2 24 26	3 14 15	3 16 33
24	4 4	9 27 53	11 25 41	5 4 45	3 7 03	2 26 54	3 18 09	3 20 04
26	6 4	9 27 45	11 25 47	5 5 57	3 8 58	2 29 21	3 21 57	3 23 49
28	7 4	9 27 36	11 25 53	5 7 07	3 10 53	3 1 48	3 25r39	3 27 27
30	9 4	9 27 28	11 25 57	5 8 22	3 12 47	3 4 16	3 29 13	4 0 57
Aug. 1	11 4	9 27 19	11 26 01	5 9 35	3 14 42	3 6 44	4 2 40	4 4 21

Ayanamsa on 1st Jan. : 23° 20′ 10″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☊ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	11	4	9	R27	19	11	26	01	5	9	35	3	14	42	3	6	44	4	2	40	4	4	21
3	13	4	9	27	10	11	26	04	5	10	48	3	16	37	3	9	11	4	6	01	4	7	39
5	15	4	9	27	02	11	26	06	5	12	02	3	18	32	3	11	39	4	9	15	4	10	50
7	17	4	9	26	53	11	26	08	5	13	16	3	20	26	3	14	s07	4	12	23	4	13	54
9	19	4	9	26	44	11	R26	08	5	14	31	3	22	21	3	16	35	4	15	23	4	16	51
11	22	4	9	26	35	11	26	08	5	15	45	3	24	17	3	19	03	4	18	17	4	19	42
13	24	4	9	26	☍26	11	26	07	5	17	00	3	26	12	3	21	31	4	21	05	4	22	25
15	26	4	9	26	17	11	26	05	5	18	16	3	28	07	3	23	59	4	23	45	4	25	02
17	28	4	9	26	08	11	26	03	5	19	31	4	0	02	3	26	27	4	26	17	4	27	30
19	30	4	9	25	59	11	26	00	5	20	47	4	1	58	3	28	56	4	28	42	4	29	51
21	2	5	9	25	50	11	25	55	5	22	04	4	3	53	4	1	24	5	0	58	5	2	02
23	4	5	9	25	41	11	25	51	5	23	20	4	5	49	4	3	53	5	3	05	5	4	04
25	6	5	9	25	33	11	25	45	5	24	37	4	7	45	4	6	21	5	5	01	5	5	55
27	8	5	9	25	24	11	25	38	5	25	55	4	9	40	4	8	50	5	6	46	5	7	34
29	10	5	9	25	15	11	25	31	5	27	12	4	11	36	4	11	19	5	8	19	5	9	00
31	11	5	9	25	07	11	25	23	5	28	30	4	13	32	4	13	☌47	5	9	37	5	10	10
Sept. 2	14	5	9	24	59	11	25	15	5	29	48	4	15	28	4	16	16	5	10	39	5	11	03
4	16	5	9	24	51	11	25	05	6	1	07	4	17	24	4	18	54	5	11	22	5	11	36
6	18	5	9	24	43	11	24	55	6	2	26	4	19	21	4	21	14	5	R11	45	5	11	48
8	20	5	9	24	35	11	24	45	6	3	45	4	21	17	4	23	43	5	11	44	5	11	s35
10	22	5	9	24	28	11	24	33	6	5	04	4	23	14	4	26	12	5	11	19	5	10	56
12	25	5	9	24	21	11	24	22	6	6	24	4	25	10	4	28	41	5	10	27	5	9	51
14	27	5	9	24	14	11	24	09	6	7	44	4	27	07	5	1	11	5	9	09	5	8	21
16	29	5	9	24	07	11	23	56	6	9	01	4	29	04	5	3	40	5	7	28	5	6	31
18	1	6	9	24	01	11	23	43	6	10	25	5	1	01	5	6	09	5	5	30	5	4	27
20	3	6	9	23	55	11	23	29	6	11	46	5	2	58	5	8	38	5	3	☌23	5	2	19
22	4	6	9	23	49	11	23	14	6	13	07	5	4	56	5	11	08	5	1	19	5	0	21
24	6	6	9	23	44	11	23	00	6	14	29	5	6	53	5	13	37	4	29	30	4	28	r45
26	8	6	9	23	39	11	22	44	6	15	50	5	8	51	5	16	r06	4	28	08	4	27	39
28	10	6	9	23	34	11	22	29	6	17	12	5	10	48	5	18	36	4	27	21	4	D27	12
30	12	6	9	23	30	11	22	13	6	18	35	5	12	40	5	21	05	4	27	14	4	27	26
Oct. 2	14	6	9	23	26	11	21	58	6	19	57	5	14	44	5	23	35	4	27	48	4	28	20
4	16	6	9	23	22	11	21	42	6	21	20	5	16	42	5	26	04	4	29	00	4	29	50
6	19	6	9	23	19	11	21	25	6	22	43	5	18	40	5	28	34	5	0	47	5	1	51
8	21	6	9	23	16	11	21	☍09	6	24	07	5	20	39	6	1	03	5	3	02	5	4	19
10	23	6	9	23	13	11	20	53	6	25	31	5	22	37	6	3	33	5	5	40	5	7	06
12	25	6	9	23	11	11	20	37	6	26	55	5	24	36	6	6	02	5	8	35	5	10	07
14	27	6	9	23	09	11	20	21	6	28	19	5	26	34	6	8	32	5	11	42	5	13	19
16	29	6	9	23	08	11	20	05	6	29	44	5	28	33	6	11	02	5	14	57	5	16	37
18	1	7	9	23	07	11	19	49	7	1	09	6	0	33	6	13	31	5	18	s18	5	19	59
20	3	7	9	23	06	11	19	34	7	2	34	6	2	32	6	16	01	5	21	41	5	23	23
22	5	7	9	D23	06	11	19	19	7	3	59	6	4	31	6	18	30	5	25	05	5	26	48
24	6	7	9	23	06	11	19	04	7	5	25	6	6	31	6	21	00	5	28	30	6	0	12
26	8	7	9	23	07	11	18	49	7	6	51	6	8	30	6	23	30	6	1	53	6	3	35
28	10	7	9	23	08	11	18	35	7	8	17	6	10	30	6	25	59	6	5	16	6	6	56
30	12	7	9	23	10	11	18	22	7	9	43	6	12	30	6	28	29	6	8	36	6	10	16
Nov. 1	15	7	9	23	12	11	18	09	7	11	10	6	14	30	7	0	58	6	11	55	6	13	34
3	17	7	9	23	14	11	17	56	7	12	37	6	16	30	7	3	28	6	15	13	6	16	50
5	20	7	9	23	17	11	17	44	7	14	04	6	18	30	7	5	57	6	18	☌28	6	20	05
7	22	7	9	23	20	11	17	33	7	15	32	6	20	30	7	8	27	6	21	42	6	23	18
9	24	7	9	23	23	11	17	22	7	17	00	6	22	31	7	10	56	6	24	54	6	26	29
11	26	7	9	23	27	11	17	12	7	18	28	6	24	31	7	13	26	6	28	05	6	29	39
13	28	7	9	23	31	11	17	03	7	19	56	6	26	32	7	15	56	7	1	14	7	2	48
15	29	7	9	23	36	11	16	54	7	21	24	6	28	33	7	18	25	7	4	22	7	5	56

Longitudes of Planets

Date	Tithi & Month	Nirayana Longitudes at 5-30 A.M. I S.T.						
		♄ श श	गु ♃ बृ	मं ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	29 7	9 23 36	11R16 54	7 21 24	6 28 33	7 18 25	7 4 22	7 5 56
17	1 8	9 23 41	11 16 46	7 22 53	7 0 34	7 20 55	7 7 29	7 9 02
19	3 8	9 23 47	11 16 39	7 24 22	7 2 35	7 23 24	7 10 35	7 12 08
21	5 8	9 23 52	11 16 33	7 25 51	7 4 36	7 25 54	7 13 41	7 15 13
23	7 8	9 23 59	11 16 27	7 27 21	7 6 37	7 28 23	7 16 45	7 18 17
25	9 8	9 24 05	11 16 23	7 28 50	7 8 38	8 0 53	7 19 49	7 21 20
27	11 8	9 24 12	11 16 19	8 0 20	7 10 40	8 3 22	7 22 51	7 24 23
29	13 8	9 24 20	11 16 16	8 1 50	7 12 41	8 5 51	7 25 53	7 27 24
Dec. 1	16 8	9 24 27	11 16 13	8 3 21	7 14 43	8 8 21	7 28 54	8 0r24
3	18 8	9 24 35	11 16 12	8 4 51	7 16 44	8 10 50	8 1 54	8 3 23
5	20 8	9 24 43	11D16 11	8 6 22	7 18 46	8 13 19	8 4 52	8 6 20
7	22 8	9 24 52	11 16 12	8 7 53	7 20 48	8 15 48	8 7 47	8 9 14
9	24 8	9 25 01	11 16 13	8 9 24	7 22 50	8 18 18	8 10 40	8 12 04
11	26 8	9 25 10	11 16 15	8 10s55	7 24 52	8 20 47	8 13 28	8 14 50
13	28 8	9 25 20	11 16 17	8 12 27	7 26 54	8 23 16	8 16 10	8 17 28
15	30 8	9 25 30	11 16 21	8 13 59	7 28 56	8 25 45	8 18 44	8 19 57
17	1 9	9 25 40	11 16 25	8 15 31	8 0 58	8 28 14	8 21 07	8 22 13
19	3 9	9 25 50	11 16 30	8 17 03	8 3 00	9 0 43	8 23 15	8 24 11
21	5 9	9 26 01	11 16 36	8 18 35	8 5 02	9 3 12	8 25 02	8 25 47
23	7 9	9 26 12	11 16 43	8 20 07	8 7 04	9 5 41	8 26 24	8 26 53
25	9 9	9 26 23	11 16 51	8 21 40	8 9 07	9 8 09	8 27 13	8R27 23
27	11 9	9 26 34	11 16 59	8 23 13	8 11 09	9 10 38	8 27 21	8 27 09
29	14 9	9 26 46	11 17 08	8 24 46	8 13 11	9 13 06	8 26 45	8 26 08
31	16 9	9 26 58	11 17 18	8 26 19	8 15 13	9 15 35	8 25s21	8 24 23
Jan. 2	18 9	9 27 10	11 17 29	8 27 52	8 17 16	9 18 03	8 23 16	8 22 01

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	3 6 16	3 7 21	4R11 46	6 21 44	4R18 45	23 20 10
February 1	3 6 19	3 5 42	4 10 50	6R22 15	4 18 14	23 20 15
March 1	3 5 44	3 4 13	4 9 39	6 22 17	4 17 34	23 20 18
April 1	3 3 17	3 2 35	4 8 26	6 21 50	4 16 48	23 20 21
May 1	3 0 0	3 0 59	4 7 51	6 21 5	4 16 18	23 20 24
June 1	2 27 40	2 29 21	4 D 8 2	6 20 16	4D16 13	23 20 28
July 1	2 27 5	2 27 45	4 9 0	6 19 42	4 16 36	23 20 33
August 1	2 27 8	2 26 7	4 10 34	6D19 33	4 17 23	23 20 38
September 1	2 26 12	2 24 28	4 12 27	6 19 55	4 18 25	23 20 42
October 1	2 23 33	2 22 53	4 14 17	6 20 41	4 19 27	23 20 45
November 1	2 20 9	2 21 14	4 15 48	6 21 45	4 20 19	23 20 48
December 1	2 18 11	2 19 39	4R16 37	6 22 52	4 R20 48	23 20 52
January 1	2 17 55	2 18 0	4 16 36	6 23 50	4 20 49	23 20 58

Combustion or Heliacal Setting of Planets

Saturn : From Jan. 20 to Feb. 22
Jupiter : From Mar. 5 to Apr. 4.
Mars : From Dec. 12 to May 19, ('64)
Venus : From Aug. 8 to Sept. 26.
Mercury : From Jan. 15 to Jan. 24, Mar. 7 to Apr. 11, May 11 to May 29, July 1 to July 28, Sept. 9 to Sept. 25, Oct. 18 to Dec. 2, Dec. 31 to Jan. 9 ('64).

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Jan. 11,	17	14	9	13	20	Feb. 1,	7	43	8	27	21
	May 6,	28	8	1	7	17	May 30,	24	19	0	28	24
	Sept. 6,	28	30	5	11	48	Sept. 29,	13	33	4	27	12
	Dec. 26,	15	2	8	27	22	—	—			—	
Venus	—	—			—		—	—			—	
Mars	—	—			—		Mar. 16,	22	54	3	12	0
Jupiter	Aug. 9,	20	55	11	26	8	Dec. 5,	15	45	11	16	11
Saturn	June 3,	15	23	9	29	46	Oct. 21,	22	4	9	23	6
Uranus	—	—			—		May 9,	15	51	4	7	49
	Dec. 16,	10	29	4	16	43	—	—			—	
Neptune	Feb. 16,	11	35	6	22	20	July 25,	24	12	6	19	33
Pluto	—	—			—		May 21,	20	17	4	16	12
	Dec. 17,	11	41	4	20	52	—	—			—	

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
	—					Jan.	9	28	38	Māgha	Vadi
Jan.	25	19	12	Māgha	Sukla	Feb.	8	20	22	Phālguna	,,
Feb.	24	7	36	Phālguna	,,	Mar.	10	13	19	Caitra	,,
Mar.	25	17	40	Caitra	,,	Apr.	9	6	27	Vaiśākha	,,
Apr.	23	25	59	Vaiśākha	,,	May	8	22	53	Jyaiṣṭha	,,
May	23	9	30	Jyaiṣṭha	,,	June	7	14	1	Āṣāḍha	,,
June	21	17	16	Āṣāḍha	,,	July	6	27	25	Śrāvaṇa	,,
July	20	26	13	Śrāvaṇa	,,	Aug.	5	15	1	Bhādra	,,
Aug.	19	13	5	Bhādra	,,	Sept.	3	25	4	Āśvina	,,
Sept.	17	26	21	Āśvina	,,	Oct.	3	10	14	Kārtika	,,
Oct.	17	18	13	Kārtika	,,	Nov.	1	19	25	Marga	,,
Nov.	16	12	20	Agrahā	,,	Nov.	30	29	24	Pauṣa	,,
Dec.	16	7	36	Pauṣa	,,	Dec.	30	16	34	Māgha	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	11	21	Karkaṭa	on	July	16	20	9
Kumbha	on	Feb.	12	24	18	Siṁha	on	Aug.	16	28	34
Mina	on	Mar.	14	21	10	Kanyā	on	Sept.	16	28	30
Meṣa	on	Apr.	14	5	39	Tulā	on	Oct.	17	16	24
Vṛṣa	on	May	14	26	33	Vṛścika	on	Nov.	16	16	10
Mithuna	on	June	15	9	13	Dhanus	on	Dec.	16	6	46

1964 A.D. Longitude of Moon CONDENSED

Saka era 1985-86, Saṁvat 2020-21 (Mar. 15, Nov. 5), B.S 1370-71 (Apr. 14), Kollam era 1139-40 (Aug. 16), 38 Krodhin (Mar. 15, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (চ ☽ ট) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.29	13 9	1 22 52	2 7 49	2 22 58	3 7 10	3 21 20	4 5 5	4 18 24
Jan. 5	20 9	5 1 18	5 13 50	5 26 5	6 8 7	6 20 0	7 1 49	7 13 38
12	27 9	7 25 32	8 7 33	8 19 43	9 2 4	9 14 38	9 27 25	10 10 26
19	5 10	10 23 40	11 7 7	11 20 47	0 4 40	0 18 45	1 3 1	1 17 25
26	12 10	2 1 54	2 16 24	3 0 50	3 15 6	3 29 6	4 12 48	4 26 8
Feb. 2	19 10	5 9 6	5 21 42	6 4 1	6 16 5	6 27 59	7 9 48	7 21 38
9	26 10	8 3 33	8 15 38	8 27 57	9 10 32	9 23 24	10 6 34	10 20 0
16	3 11	11 3 41	11 17 32	0 1 32	0 15 36	0 29 42	1 13 50	1 27 57
23	10 11	2 12 2	2 26 4	3 10 1	3 23 51	4 7 30	4 20 55	5 4 4
Mar. 1	17 11	5 16 56	5 29 30	6 11 48	6 23 52	7 5 46	7 17 36	7 29 25
8	24 11	8 11 20	8 23 27	9 5 49	9 18 31	10 1 36	10 15 4	10 28 53
15	1 12	11 13 0	11 27 20	0 11 46	0 26 12	1 10 34	1 24 48	2 8 52
22	8 12	2 22 46	3 6 30	3 20 5	4 3 29	4 16 44	4 29 46	5 12 37
29	15 12	5 25 15	6 7 39	6 19 50	7 1 51	7 13 43	7 25 32	8 7 20
Apr. 5	22 12	8 19 14	9 1 20	9 13 41	9 26 24	10 9 33	10 23 8	11 7 9
12	29 12	11 21 34	0 6 16	0 21 7	1 5 58	1 20 42	2 5 13	2 19 27
19	6 1	3 3 24	3 17 3	4 0 26	4 13 35	4 26 30	5 9 13	5 21 44
26	13 1	6 4 5	6 16 17	6 28 19	7 10 14	7 22 3	8 3 51	8 15 39
May 3	20 1	8 27 33	9 9 38	9 21 58	10 4 39	10 17 44	11 1 17	11 15 19
10	27 1	11 29 48	0 14 38	0 29 42	1 14 50	1 29 53	2 14 43	2 29 13
17	3 2	3 13 22	3 27 7	4 10 29	4 23 32	5 6 17	5 18 47	6 1 5
24	10 2	6 13 13	6 25 13	7 7 7	7 18 57	8 0 45	8 12 33	8 24 25
31	17 2	9 6 22	9 18 30	10 0 52	10 13 32	10 26 34	11 10 1	11 23 55
June 7	24 2	0 8 16	0 22 59	1 8 1	1 23 11	2 8 22	2 23 23	3 8 7
14	31 2	3 22 28	4 6 23	4 19 52	5 2 57	5 15 40	5 28 5	6 10 16
21	7 3	6 22 16	7 4 9	7 15 58	7 27 46	8 9 35	8 21 28	9 3 27
28	14 3	9 15 34	9 27 51	10 10 21	10 23 6	11 6 10	11 19 34	0 3 19
July 5	21 3	0 17 27	1 1 55	1 16 42	2 1 40	2 16 42	3 1 41	3 16 26
12	28 3	4 0 54	4 14 56	4 28 32	5 11 42	5 24 28	6 6 53	6 19 1
19	3 4	7 0 59	7 12 49	7 24 37	8 6 25	8 18 19	9 0 19	9 12 29
26	10 4	9 24 50	10 7 23	10 20 9	11 3 8	11 16 21	11 29 49	0 13 32
Aug. 2	17 4	0 27 30	1 11 44	1 26 10	2 10 47	2 25 30	3 10 12	3 24 46
9	24 4	4 9 7	4 23 7	5 6 43	5 19 55	6 2 42	6 15 9	6 27 18
16	31 4	7 9 15	7 21 5	8 2 53	8 14 44	8 26 42	9 8 52	9 21 14
23	7 5	10 3 52	10 16 44	10 29 51	11 13 12	11 26 44	0 10 26	0 24 16
30	14 5	1 8 14	1 22 19	2 6 31	2 20 47	3 5 5	3 19 23	4 3 35
Sept.6	21 5	4 17 36	5 1 23	5 14 50	5 27 56	6 10 41	6 23 6	7 5 15
13	28 5	7 17 11	7 29 1	8 10 49	8 22 42	9 4 43	9 16 59	9 29 31
20	4 6	10 12 23	10 25 34	11 9 4	11 22 49	0 6 47	0 20 52	1 5 1
27	11 6	1 19 10	2 3 19	2 17 25	3 1 28	3 15 27	3 29 20	4 13 6
Oct. 4	18 6	4 26 43	5 10 7	5 23 16	6 6 8	6 18 44	7 1 3	7 13 9
11	25 6	7 25 4	8 6 52	8 18 40	9 0 32	9 12 33	9 24 49	10 7 25
18	1 7	10 20 23	11 3 46	11 17 31	0 1 38	0 16 0	1 0 32	1 15 7
25	8 7	1 29 39	2 14 3	2 28 17	3 12 20	3 26 10	4 9 47	4 23 12
Nov 1	15 7	5 6 25	5 19 25	6 2 13	6 14 47	6 27 8	7 9 18	7 21 17
8	22 7	8 3 9	8 14 56	8 26 43	9 8 33	9 20 33	10 2 46	10 15 19
15	29 7	10 28 15	11 11 37	11 25 26	0 9 40	0 24 17	1 9 9	1 24 8
22	6 8	2 9 5	2 23 54	3 8 27	3 22 42	4 6 37	4 20 11	5 3 26
29	13 8	5 16 23	5 29 4	6 11 33	6 23 49	7 5 56	7 17 55	7 29 48
Dec. 6	20 8	8 11 36	8 23 23	9 5 11	9 17 3	9 29 3	10 11 15	10 23 43
13	27 8	11 6 32	11 19 45	0 3 25	0 17 33	1 2 6	1 17 1	2 2 10
20	5 9	2 17 24	3 2 34	3 17 29	4 2 3	4 16 12	4 29 55	5 13 11
27	12 9	5 26 4	6 8 37	6 20 54	7 2 58	7 14 55	7 26 45	8 8 32
Jan. 3	19 9	8 20 20	9 2 9	9 14 2	9 26 0	10 8 6	10 20 23	11 2 52

Ayanamsa on 1st Jan. : 23° 20′ 58″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	17 9	9 27 04	11 17 23	8 27s05	8 16 15	9 16 49	8*R*24 23	8 23s16
3	19 9	9 27 16	11 17 34	8 28 39	8 18 17	9 19 17	8 22 01	8 20◎43
5	21 9	9 27 29	11 17 46	9 0 12	8 20 19	9 21 45	8 19 21	8 18 01
7	23 9	9 27 41	11 17 58	9 1 45	8 22 21	9 24 13	8 16 43	8 15r31
9	25 9	9 27 54	11 18 11	9 3 19	8 24 24	9 26 41	8 14 26	8 13 29
11	27 9	9 28 07	11 18 25	9 4 53	8 26 26	9 29 08	8 12 42	8 12 04
13	29 9	9 28 20	11 18 39	9 6 27	8 28 28	10 1 36	8 11 37	8 11 19
15	1 10	9 28 33	11 18 54	9 8 01	9 0 31	10 4 03	8D11 10	8 11 10
17	3 10	9 28 47	11 19 10	9 9 35	9 2 33	10 6 30	8 11 18	8 11 34
19	5 10	9 29 00	11 19 26	9 11 09	9 4 35	10 8 57	8 11 57	8 12 26
21	7 10	9 29 14	11 19 43	9 12 43	9 6 37	10 11 24	8 13 00	8 13 40
23	9 10	9 29 28	11 20 00	9 14 18	9 8 39	10 13 50	8 14 25	8 15 14
25	11 10	9 29 42	11 20 18	9 15 52	9 10 41	10 16 16	8 16 06	8 17 02
27	13 10	9 29 56	11 20 36	9 17 27	9 12 43	10 18 42	8 18 01	8 19 03
29	15 10	10 0 10	11 20 55	9 19 01	9 14 45	10 21 08	8 20 08	8 21 15
31	18 10	10 0s24	11 21 15	9 20 36	9 16 47	10 23 33	8 22 24	8 23 35
Feb. 2	20 10	10 0 38	11 21 35	9 22 11	9 18 49	10 25 58	8 24 48	8 26 02
4	22 10	10 0 53	11 21 55	9 23 45	9 20 51	10 28 23	8 27 18	8 28 36
6	23 10	10 1 07	11 22 16	9 25 20	9 22 52	11 0 48	8 29 55	9 1 15
8	25 10	10 1 22	11 22 37	9 26 55	9 24 54	11 3 12	9 2 36	9 3 59
10	27 10	10 1 36	11 22 59	9 28 30	9 26 55	11 5 36	9 5 23	9 6 48
12	29 10	10 1 50	11 23 21	10 0 04	9 28 57	11 7 59	9 8 14	9 9 41
14	1 11	10 2 05	11 23 44	10 1 39	10 0 58	11 10 22	9 11 08	9 12 37
16	3 11	10 2◎19	11 24 07	10 3 14	10 2 59	11 12 45	9 14 07	9 15 38
18	5 11	10 2 34	11 24 30	10 4◎49	10 5 01	11 15 07	9 17 10	9 18s42
20	7 11	10 2 48	11 24 54	10 6 24	10 7 02	11 17 29	9 20 16	9 21 50
22	10 11	10 3 03	11 25 18	10 7 59	10 9 03	11 19 50	9 23 26	9 25 02
24	12 11	10 3 17	11 25 42	10 9 34	10 11 03	11 22 11	9 26 39	9 28 18
26	14 11	10 3 32	11 26 07	10 11 08	10 13 04	11 24 31	9 29 57	10 1 37
28	16 11	10 3 46	11 26 32	10 12 43	10 15 05	11 26 50	10 3 18	10 5 01
Mar. 1	18 11	10 4 00	11 26 57	10 14 18	10 17 05	11 29 09	10 6 44	10 8 28
3	20 11	10 4 15	11 27 23	10 15 53	10 19 05	0 1 28	10 10 14	10 12 00
5	22 11	10 4 29	11 27 49	10 17 27	10 21 06	0 3 46	10 13 48	10 15 36
7	24 11	10 4r43	11 28 15	10 19 02	10 23 06	0 6 03	10 17 26	10 19 17
9	25 11	10 4 57	11 28 41	10 20 36	10 25 06	0 8 19	10 21 09	10 23 02
11	27 11	10 5 11	11 29 08	10 22 11	10 27 06	0 10 35	10 24 56	10 26 51
13	29 11	10 5 24	11 29 35	10 23 45	10 29 05	0 12 50	10 28◎47	11 0 44
15	1 *12*	10 5 38	0 0 02	10 25 19	11 1 05	0 15 04	11 2 41	11 4 40
17	4 *12*	10 5 52	0 0 29	10 26 54	11 3 05	0 17 18	11 6 39	11 8 39
19	6 *12*	10 6 05	0 0 56	10 28 28	11 5 04	0 19 30	11 10 39	11 12 39
21	8 *12*	10 6 18	0 1 24	11 0 02	11 7 03	0 21 42	11 14 40	11 16 39
23	10 *12*	10 6 31	0 1 51	11 1 36	11 9 02	0 23 52	11 18 39	11 20 37
25	12 *12*	10 6 44	0 2 19	11 3 09	11 11 01	0 26 02	11 22r34	11 24 29
27	14 *12*	10 6 57	0 2 47	11 4 43	11 13 00	0 28 10	11 26 23	11 28 13
29	16 *12*	10 7 09	0 3 15	11 6 17	11 14 59	1 0 17	0 0 01	0 1 46
31	18 *12*	10 7 22	0 3 44	11 7 50	11 16 57	1 2 23	0 3 26	0 5 03
Apr. 2	20 *12*	10 7 34	0 4 12	11 9 23	11 18 56	1 4 28	0 6 35	0 8 03
4	22 *12*	10 7 46	0 4 40	11 10 57	11 20 54	1 6 31	0 9 25	0 10 42
6	24 *12*	10 7 58	0 5 09	11 12 30	11 22 52	1 8 33	0 11 53	0 12 59
8	26 *12*	10 8 09	0 5 37	11 14 03	11 24 50	1 10 33	0 13 59	0 14 52
10	28 *12*	10 8 21	0 6s06	11 15 35	11 26 48	1 12 33	0 15 39	0 16 20
12	30 *12*	10 8 32	0 6 35	11 17 08	11 28 46	1 14 29	0 16 54	0 17 22
14	2 12	10 8 42	0 7 03	11 18 40	0 0 43	1 16 24	0 17 44	0 17 59
16	4 12	10 8 53	0 7 32	11 20 13	0 2 41	1 18 17	0R18 08	0 18 10

Ayanamsa on 1st Jan. : 23° 20′ 58″

Date	*Tithi* & *Month*	श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.16	4 12	10 8 53	0 7s32	11 20s13	0 2 41	1 18 17	0R18 08	0 18 10
18	7 12	10 9 03	0 8 01	11 21 45	0 4 38	1 20 07	0 18 07	0 17 57
20	9 12	10 9 13	0 8 30	11 23 17	0 6 35	1 21 56	0 17 42	0 17s23
22	11 12	10 9 23	0 8☌59	11 24 49	0 8 32	1 23 42	0 16 58	0 16 29
24	13 12	10 9 33	0 9 27	11 26 20	0 10 29	1 25 26	0 15 57	0 15 22
26	15 12	10 9 42	0 9 56	11 27 52	0 12 26	1 27 06	0 14 45	0 14☌06
28	17 12	10 9 51	0 10 25	11 29 23	0 14 23	1 28 44	0 13 26	0 12 46
30	18 12	10 9 59	0 10 54	0 0 54	0 16 19	2 0 18	0 12 07	0 11 29
May 2	20 12	10 10 08	0 11 22	0 2 25	0 18 16	2 1 48	0 10 54	0 10 20
4	22 12	10 10 16	0 11 51	0 3 55	0 20 12	2 3 15	0 9 50	0 9 23
6	24 12	10 10 23	0 12 20	0 5 26	0 22 08	2 4 38	0 9 00	0 8 41
8	26 12	10 10 31	0 12 48	0 6 56	0 24 04	2 5 56	0 8 27	0 8r17
10	28 12	10 10 38	0 13r17	0 8 26	0 26 00	2 7 10	0D8 11	0 8 10
12	1 1	10 10 44	0 13 45	0 9 56	0 27 56	2 8 19	0 8 14	0 8 23
14	3 1	10 10 51	0 14 13	0 11 26	0 29 52	2 9 22	0 8 36	0 8 53
16	5 1	10 10 57	0 14 41	0 12 56	1 1 48	2 10 19	0 9 15	0 9 41
18	7 1	10 11 02	0 15 09	0 14 25	1 3 44	2 11 09	0 10 12	0 10 46
20	9 1	10 11 08	0 15 37	0 15r54	1 5 39	2 11 53	0 11 25	0 12 07
22	11 1	10 11 12	0 16 05	0 17 23	1 7 34	2 12 29	0 12 53	0 13 42
24	13 1	10 11 17	0 16 33	0 18 51	1 9 30	2 12 58	0 14 35	0 15 31
26	15 1	10 11 21	0 17 00	0 20 20	1 11 25	2 13 18	0 16 31	0 17 34
28	17 1	10 11 25	0 17 27	0 21 48	1 13 20	2R13 29	0 18 39	0 19 48
30	19 1	10 11 28	0 17 54	0 23 16	1 15 15	2 13 31	0 21 00	0 22 15
June 1	21 1	10 11 31	0 18 21	0 24 44	1 17 10	2 13 23	0 23 32	0 24 53
3	23 1	10 11 34	0 18 48	0 26 11	1 19 05	2 13 06	0 26 16	0 27 42
5	25 1	10 11 36	0 19 15	0 27 39	1 21 00	2 12 40	0 29 10	1 0 42
7	27 1	10 11 38	0 19 41	0 29 06	1 22 55	2 12 04	1 2 16	1 3 53
9	29 1	10 11 39	0 20 07	1 0 33	1 24 50	2 11 15	1 5 32	1 7 14
11	1 2	10 11 40	0 20 33	1 1 59	1 26 44	2 10 26	1 8 59	1 10 46
13	4 2	10 11 41	0 20 59	1 3 26	1 28 39	2 9 25	1 12 36	1 14 28
15	6 2	10R11 41	0 21 24	1 4 52	2 0 34	2 8s18	1 16 23	1 18 20
17	8 2	10 11 41	0 21 49	1 6 18	2 2 28	2 7 07	1 20s19	1 22 21
19	10 2	10 11 40	0 22 14	1 7 43	2 4 23	2 5☌52	1 24 24	1 26 29
21	12 2	10 11 39	0 22 39	1 9 09	2 6 17	2 4 37	1 28 36	2 0 45
23	14 2	10 11 38	0 23 03	1 10 34	2 8 12	2 3 23	2 2 54	2 5 04
25	15 2	10 11 36	0 23 27	1 11 59	2 10 06	2 2r12	2 7 15	2 9 26
27	17 2	10 11 34	0 23 50	1 13 24	2 12 01	2 1 05	2 11☌38	2 13 49
29	19 2	10 11 32	0 24 14	1 14 48	2 13 55	2 0 04	2 15 59	2 18 09
July 1	21 2	10 11 29	0 24 37	1 16 13	2 15 49	1 29 11	2 20 18	2 22 25
3	23 2	10 11 25	0 24 59	1 17 37	2 17 44	1 28 26	2 24 32	2 26 36
5	25 2	10 11 22	0 25 21	1 19 01	2 19 38	1 27 50	2 28 40	3 0r41
7	27 2	10 11 18	0 25 43	1 20 24	2 21 33	1 27 24	3 2 41	3 4 39
9	30 2	10 11 14	0 26 05	1 21 47	2 23 27	1 27 08	3 6 35	3 8 30
11	2 3	10 11 09	0 26 26	1 23 11	2 25 21	1D27 00	3 10 22	3 12 13
13	4 3	10 11 04	0 26 46	1 24 33	2 27 16	1 27 02	3 14 01	3 15 48
15	7 3	10 10 59	0 27 07	1 25 56	2 29 10	1 27 13	3 17 33	3 19 16
17	8 3	10 10 53	0 27 26	1 27 18	3 1 05	1 27 33	3 20 57	3 22 36
19	10 3	10 10 47	0 27 46	1 28 40	3 2 59	1 28 01	3 24 13	3 25 48
21	12 3	10 10 41	0 28 05	2 0 02	3 4 54	1 28 36	3 27 21	3 28 53
23	14 3	10 10 34	0 28 23	2 1 24	3 6 48	1 29 19	4 0 22	4 1 49
25	16 3	10 10 27	0 28 41	2 2 45	3 8 43	2 0 09	4 3 15	4 4 38
27	18 3	10 10 20	0 28 58	2 4 06	3 10 38	2 1 05	4 6 00	4 7 19
29	20 3	10 10 13	0 29 15	2 5 27	3 12 32	2 2 06	4 8 37	4 9 52
31	22 3	10 10 05	0 29 31	2 6 48	3 14 27	2 3 14	4 11 05	4 12 15

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 20′ 58″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
July 31	22	3	10 R10 05	0 29 31	2 6 48	3 14 27	2 3 14	4 11 05	4 12 15
Aug. 2	24	3	10 9 57	0 29 47	2 8 08	3 16 22	2 4 26	4 13 23	4 14 29
4	26	3	10 9 50	1 0 02	2 9 29	3 18 17	2 5 43	4 15 32	4 16 33
6	28	3	10 9 41	1 0 17	2 10 48	3 20 12	2 7 05	4 17 31	4 18 25
8	1	4	10 9 33	1 0 31	2 12 08	3 22 07	2 8 30	4 19 17	4 20 06
10	3	4	10 9 24	1 0 44	2 13 27	3 24 02	2 9 59	4 20 51	4 21 33
12	5	4	10 9 16	1 0 57	2 14 47	3 25 57	2 11 32	4 22 11	4 22 45
14	7	4	10 9 07	1 1 09	2 16 05	3 27 52	2 13 08	4 23 15	4 23 41
16	9	4	10 8 58	1 1 20	2 17 24	3 29 47	2 14 47	4 24 02	4 24 18
18	11	4	10 8 49	1 1 31	2 18 42	4 1 43	2 16 28	4 24 29	4 R24 35
20	12	4	10 8 40	1 1 41	2 20 00	4 3 38	2 18 12	4 24s36	4 24 31
22	14	4	10 8 31	1 1 51	2 21 18	4 5 34	2 19 59	4 24 20	4 24 03
24	16	4	10 8☌22	1 2 00	2 22 36	4 7 29	2 21 48	4 23 40	4 23 12
26	18	4	10 8 13	1 2 08	2 23 53	4 9 25	2 23 39	4 22 38	4 21 59
28	20	4	10 8 04	1 2 15	2 25 10	4 11 21	2 25 32	4 21 14	4 20 26
30	23	4	10 7 55	1 2 21	2 26 27	4 13 17	2 27 27	4 19 34	4 18 39
Sept. 1	25	4	10 7 46	1 2 27	2 27 43	4 15 13	2 29 24	4 17 42	4 16☌45
3	27	4	10 7 37	1 2 32	2 28 59	4 17 09	3 1 23	4 15 48	4 14 54
5	29	4	10 7 28	1 2 37	3 0 15	4 19 06	3 3 23	4 14 02	4 13 15
7	1	5	10 7 19	1 2 40	3 1 31	4 21 02	3 5 25	4 12 33	4 11r57
9	3	5	10 7 11	1 2 43	3 2 46	4 22 59	3 7 28	4 11 30	4 11 10
11	5	5	10 7 02	1 2 45	3 4 01	4 24 55	3 9 32	4 D10 58	4 10 56
13	7	5	10 6 54	1 R2 46	3 5 16	4 26 52	3 11 37	4 11 03	4 11 20
15	9	5	10 6 46	1 2 46	3 6 30	4 28 49	3 13 44	4 11 45	4 12 19
17	11	5	10 6 38	1 2 46	3 7 44	5 0 46	3 15 52	4 13 02	4 13 54
19	13	5	10 6 30	1 2 44	3 8 58	5 2 43	3 18 01	4 14 53	4 15 59
21	15	5	10 6 23	1 2 42	3 10 11	5 4 40	3 20 11	4 17 12	4 18 30
23	17	5	10 6 15	1 2 39	3 11 24	5 6 38	3 22 22	4 19 54	4 21 22
25	19	5	10 6 08	1 2 36	3 12 37	5 8 35	3 24 34	4 22 55	4 24 31
27	21	5	10 6 02	1 2 31	3 13 50	5 10 33	3 26 47	4 26 10	4 27 51
29	23	5	10 5 55	1 2 26	3 15 02	5 12 31	3 29 01	4 29 34	5 1 18
Oct. 1	26	5	10 5 49	1 2 20	3 16 14	5 14 29	4 1 15	5 3 04	5 4 51
3	28	5	10 5 43	1 2 13	3 17 25	5 16 27	4 3 31	5 6s37	5 8 25
5	30	5	10 5 38	1 2 05	3 18 36	5 18 25	4 5 47	5 10 12	5 11 59
7	2	6	10 5 32	1 1 57	3 19 47	5 20 23	4 8 04	5 13 46	5 15 33
9	4	6	10 5 28	1 1 48	3 20 57	5 22 22	4 10 21	5 17 19	5 19 05
11	6	6	10 5 23	1 1 38	3 22 07	5 24 21	4 12 39	5 20 50	5 22 35
13	7	6	10 5 19	1 1 28	3 23 16	5 26 19	4 14 58	5 24 19	5 26 02
15	9	6	10 5 15	1 1 17	3 24 25	5 28 18	4 17 17	5 27☌45	5 29 27
17	11	6	10 5 12	1 1 05	3 25 34	6 0 17	4 19 37	6 1 08	6 2 49
19	13	6	10 5 09	1 0 53	3 26 42	6 2 16	4 21 58	6 4 29	6 6 09
21	15	6	10 5 06	1 0 40	3 27 50	6 4 16	4 24 19	6 7 48	6 9 26
23	17	6	10 5 04	1 0 27	3 28 57	6 6 15	4 26 40	6 11 03	6 12 40
25	20	6	10 5 02	1 0 13	4 0 04	6 8 15	4 29 03	6 14 17	6 15 53
27	22	6	10 5 01	0 29 58	4 1 10	6 10 14	5 1 25	6 17 28	6 19 03
29	24	6	10 5 00	0 29 44	4 2 16	6 12 14	5 3 48	6 20 37	6 22 11
31	26	6	10 4 59	0 29 28	4 3 21	6 14 14	5 6 12	6 23 45	6 25 18
Nov. 2	28	6	10 D4 59	0 29 13	4 4 26	6 16 14	5 8 36	6 26 50	6 28 23
4	30	6	10 4 59	0 28 57	4 5 30	6 18 15	5 11 00	6 29 54	7 1 26
6	2	7	10 5 00	0 28 41	4 6 34	6 20 15	5 13 25	7 2 56	7 4 27
8	4	7	10 5 01	0 28 25	4 7 37	6 22 15	5 15 50	7 5r57	7 7 27
10	6	7	10 5 02	0 28 09	4 8 39	6 24 16	5 18 15	7 8 56	7 10 25
12	8	7	10 5 04	0 27☌53	4 9 41	6 26 17	5 20 40	7 11 53	7 13 21
14	9	7	10 5 07	0 27 36	4 10 42	6 28 17	5 23 06	7 14 48	7 16 15

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	बृ ♃ गु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	9 7	10 5 07	0*R*27 36	4 10 42	6 28 17	5 23 06	7 14 48	7 16 15
16	11 7	10 5 09	0 27 20	4 11 43	7 0 18	5 25 33	7 17 41	7 19 07
18	14 7	10 5 13	0 27 04	4 12 42	7 2 19	5 27 59	7 20 32	7 21 56
20	16 7	10 5 16	0 26 48	4 13 41	7 4 20	6 0 26	7 23 19	7 24 41
22	18 7	10 5 20	0 26 32	4 14 40	7 6 22	6 2 53	7 26 02	7 27 23
24	20 7	10 5 24	0 26 16	4 15 37	7 8 23	6 5 20	7 28 41	7 29 58
26	23 7	10 5 29	0 26 00	4 16 34	7 10 24	6 7 48	8 1 13	8 2 26
28	25 7	10 5 34	0 25 45	4 17 30	7 12 26	6 10 15	8 3 36	8 4 44
30	27 7	10 5 40	0 25 30	4 18 25	7 14 27	6 12 43	8 5 48	8 6 49
Dec. 2	29 7	10 5 46	0 25 16	4 19 19	7 16 29	6 15 11	8 7 46	8 8 38
4	30 7	10 5 52	0 25 02	4 20 12	7 18 31	6 17 40	8 9 25	8 10 06
6	2 8	10 5 59	0 24 49	4 21 04	7 20 33	6 20 08	8 10 39	8 11 05
8	4 8	10 6 06	0 24 36	4 21 55	7 22 34	6 22 37	8 11 23	8R11 31
10	6 8	10 6 13	0 24 23	4 22 45	7 24 36	6 25 06	8 11 29	8 11 16
12	8 8	10 6 21	0 24 12	4 23 33	7 26 38	6 27 34	8 10 51	8 10s15
14	10 8	10 6 29	0 24 01	4 24 21	7 28 40	7 0 03	8 9 28	8 8 30
16	12 8	10 6 37	0 23 50	4 25 07	8. 0 42	7 2 33	8 7 23	8 6 08
18	14 8	10 6 46	0 23 41	4 25 52	8 2 45	7 5 02	8 4⊙48	8 3 25
20	16 8	10 6 55	0 23 32	4 26 36	8 4 47	7 7 31	8 2 03	8 0 43
22	19 8	10 7 04	0 23 23	4 27 18	8 6 49	7 10 00	7 29 29	7 28r22
24	21 8	10 7 14	0 23 16	4 27 59	8 8 51	7 12 30	7 27 25	7 26 37
26	23 8	10 7 24	0 23 09	4 28 39	8 10 53	7 14 59	7 26 00	7 25 34
28	25 8	10 7 34	0 23 03	4 29 17	8 12 56	7 17 29	7 25 18	7D25 13
30	27 8	10 7 45	0 22 58	4 29 53	8 14 58	7 19 59	7 25 17	7 25 29
Jan. 1	29 8	10 7 56	0 22 54	5 0 27	8 17 00	7 22 29	7 25 49	7 26 17

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	2 17 55	2 18 1	4*R*16 36	6 23 50	4*R*20 49	23 20 58
February	1	2 17 45	2 16 22	4 15 47	6 24 24	4 20 21	23 21 3
March	1	2 16 5	2 14 50	4 14 34	6R24 27	4 19 39	23 21 7
April	1	2 12 46	2 13 11	4 13 19	6 24 1	4 18 52	23 21 9
May	1	2 9 55	2 11 36	4 12 38	6 23 17	4 18 22	23 21 13
June	1	2 8 45	2 9 57	4D12 43	6 22 28	4D18 15	23 21 18
July	1	2 8 45	2 8 22	4 13 34	6 21 53	4 18 37	23 21 23
August	1	2 8 21	2 6 43	4 15 5	6D21 43	4 19 24	23 21 28
September	1	2 6 15	2 5 5	4 16 58	6 22 3	4 20 26	23 21 32
October	1	2 3 0	2 3 29	4 18 48	6 22 48	4 21 28	23 21 35
November	1	2 0 20	2 1 51	4 20 23	6 23 52	4 22 22	23 21 38
December	1	1 29 32	2 0 16	4R21 19	6 24 59	4 22 53	23 21 43
January	1	1 29 36	1 28 37	4 21 26	6 25 57	4R22 55	23 21 48

Combustion or Heliacal Setting of Planets

Saturn : From Feb. 1 to Mar. 6.

Jupiter : From Apr. 11 to Mar. 10.

Mars : Up to May 19.

Venus : From June 15 to June 25.

Mercury : Upto Jan. 9, then from Feb. 19 to Mar. 25, Apr. 21 to May 9, June 17 to July 7, Aug. 20 to Sept. 8, Oct. 3 to Nov. 8, Dec. 13 to Dec. 23.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	—	—		—			Jan. 15,	17	16	8	11	10
	Apr. 16,	27	29	0	18	10	May 10,	21	39	0	18	10
	Aug. 19,	19	41	4	24	36	Sept. 11,	23	15	4	10	56
	Dec. 9,	12	23	8	11	31	Dec. 29,	7	53	7	25	13
Venus	May 29,	15	58	2	13	31	July 11,	18	33	1	27	0
Mars	—	—		—			—	—		—		
Jupiter	Sept. 14,	24	29	1	2	46	—	—		—		
Saturn	June 15,	9	5	10	11	41	Nov. 1,	26	15	10	4	59
Uranus	—	—		—			May 13,	17	24	4	12	34
	Dec. 20,	11	43	4	21	29	—	—		—		
Neptune	Feb. 18,	20	40	6	24	29	July 27,	12	1	6	21	42
Pluto	—	—		—			May 22,	25	40	4	18	14
	Dec. 18,	22	28	4	22	58	—	—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	14	26	13	Māgha	Sukla	Jan.	28	28	53	Phālguna	Vadi
Feb.	13	18	31	Phālguna	,,	Feb.	27	18	9	Chitra	,,
Mar.	14	7	44	Caitra (*Mala*)	,,	Mar.	28	8	18	Caitra (*Adhika*)	,,
Apr.	12	18	7	Caitra	,,	Apr.	26	23	20	Vaiśākha	,,
May	11	26	32	Vaiśākha	,,	May	26	14	59	Jyaiṣṭha	,,
June	10	9	52	Jyaiṣṭha	,,	June	25	6	38	Āṣāḍha	,,
July	9	17	1	Āṣāḍha	,,	July	24	21	28	Śrāvaṇa	,,
Aug.	7	24	47	Śrāvaṇa	,,	Aug.	23	10	55	Bhādra	,,
Sept.	6	10	4	Bhādra	,,	Sept.	21	23	1	Āśvina	,,
Oct.	5	21	50	Āśvina	,,	Oct.	21	10	15	Kārtika	,,
Nov.	4	12	46	Kārtika	,,	Nov.	19	21	13	Agrahā	,,
Dec.	4	6	48	Agrahā	,,	Dec.	19	8	11	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	17	30	Karkaṭa	on	July	15	26	18
Kumbha	on	Feb.	13	6	29	Simha	on	Aug.	16	10	43
Mīna	on	Mar.	13	27	22	Kanyā	on	Sept.	16	10	38
Meṣa	on	Apr.	13	11	52	Tulā	on	Oct.	16	22	31
Vṛṣa	on	May	14	8	45	Vṛścika	on	Nov.	15	22	14
Mithuna	on	June	14	15	23	Dhanus	on	Dec.	15	12	48

1965 A.D. Longitude of Moon CONDENSED

Saka era 1886-87, Saṁvat 2021-22 (Apr. 2, Oct. 25), B.S. 1371-72 (Apr. 14), Kollam era 1140-41 (Aug. 17), 39 Visvavasu (Apr. 2, 14)

Nirayana Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.

Date	Beng. Date		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec.27	12	9	5	26	4	6	8	37	6	20	54	7	2	58	7	14	55	7	26	45	8	8	33
Jan. 3	19	9	8	20	20	9	2	9	9	14	2	9	26	0	10	8	6	10	20	23	11	2	52
10	26	9	11	15	38	11	28	44	0	12	12	0	26	4	1	10	22	1	25	3	2	10	3
17	3	10	2	25	14	3	10	28	3	25	33	4	10	21	4	24	45	5	8	39	5	22	5
24	10	10	6	5	2	6	17	36	6	29	51	7	11	51	7	23	42	8	5	29	8	17	15
31	17	10	8	29	4	9	10	59	9	22	59	10	5	9	10	17	27	10	29	57	11	12	37
Feb. 7	24	10	11	25	30	0	8	37	0	22	1	1	5	43	1	19	44	2	4	5	2	18	43
14	2	11	3	3	35	3	18	33	4	3	29	4	18	14	5	2	39	5	16	39	6	0	11
21	9	11	6	13	15	6	25	53	7	8	11	7	20	13	8	2	4	8	13	51	8	25	39
28	16	11	9	7	31	9	19	31	10	1	41	10	14	4	10	26	39	11	9	27	11	22	27
Mar. 7	23	11	0	5	38	0	18	59	1	2	31	1	16	14	2	0	10	2	14	17	2	28	35
14	30	11	3	13	3	3	27	35	4	12	7	4	26	32	5	10	42	5	24	33	6	8	0
21	7	12	6	21	3	7	3	43	7	16	4	7	28	8	8	10	2	8	21	51	9	3	41
28	14	12	9	15	35	9	27	40	10	9	58	10	22	32	11	5	23	11	18	29	0	1	52
Apr. 4	21	12	0	15	26	0	29	11	1	13	4	1	27	2	2	11	5	2	25	12	3	9	21
11	28	12	3	23	31	4	7	40	4	21	45	5	5	41	5	19	26	6	2	55	6	16	7
18	5	1	6	29	0	7	11	34	7	23	52	8	5	56	8	17	51	8	29	42	9	11	33
25	12	1	9	23	29	10	5	36	10	17	57	11	0	37	11	13	36	11	26	57	0	10	37
May 2	19	1	0	24	34	1	8	45	1	23	4	2	7	27	2	21	49	3	6	8	3	20	21
9	26	1	4	4	26	4	18	20	5	2	4	5	15	35	5	28	53	6	11	58	6	24	48
16	2	2	7	7	24	7	19	46	8	1	57	8	13	58	8	25	51	9	7	42	9	19	33
23	9	2	10	1	30	10	13	36	10	25	57	11	8	36	11	21	37	0	5	2	0	18	51
30	16	2	1	3	3	1	17	33	2	2	16	2	17	4	3	1	52	3	16	31	4	0	58
June 6	23	2	4	15	7	4	28	59	5	12	31	5	25	46	6	8	44	6	21	28	7	3	58
13	30	2	7	16	17	7	28	26	8	10	27	8	22	23	9	4	14	9	16	4	9	27	56
20	5	3	10	9	53	10	21	59	11	4	18	11	16	54	11	29	51	0	13	13	0	27	1
27	12	3	1	11	14	1	25	52	2	10	48	2	25	55	3	11	3	3	26	3	4	10	33
July 4	19	3	4	25	9	5	9	5	5	22	37	6	5	45	6	18	32	7	1	2	7	13	18
11	26	3	7	25	24	8	7	23	8	19	17	9	1	8	9	12	59	9	24	50	10	6	45
18	2	4	10	18	46	11	0	54	11	13	13	11	25	48	0	8	40	0	21	55	1	5	35
25	9	4	1	19	42	2	4	14	2	19	9	3	4	20	3	19	36	4	4	48	4	19	45
Aug. 1	16	4	5	4	18	5	18	24	6	2	1	6	15	10	6	27	54	7	10	19	7	22	28
8	23	4	8	4	28	8	16	22	8	28	10	9	10	0	9	21	53	10	3	49	10	15	51
15	30	4	10	27	59	11	10	15	11	22	41	0	5	19	0	18	13	1	1	24	1	14	57
22	5	5	1	28	52	2	13	12	2	27	54	3	12	53	3	28	2	4	13	10	4	28	8
29	12	5	5	12	45	5	26	56	6	10	38	6	23	51	7	6	38	7	19	3	8	1	12
Sept. 5	19	5	8	13	10	8	25	1	9	6	51	9	18	42	10	0	59	10	12	42	10	24	53
12	26	5	11	7	14	1	19	44	0	2	24	0	15	15	0	28	18	1	11	35	1	25	7
19	2	6	2	8	57	2	23	4	3	7	29	3	22	8	4	6	56	4	21	46	5	6	28
26	9	6	5	20	56	6	5	1	6	18	42	7	1	56	7	14	45	7	27	13	8	9	24
Oct. 3	16	6	8	21	24	9	3	16	9	15	7	9	27	1	10	9	1	10	21	12	11	3	33
10	23	6	11	16	8	11	28	55	0	11	55	0	25	7	1	8	30	1	22	4	2	5	48
17	30	6	2	19	42	3	3	46	3	17	59	4	2	18	4	16	41	5	1	3	5	15	19
24	7	7	5	29	23	6	13	11	6	26	40	7	9	48	7	22	35	8	5	3	8	17	15
31	14	7	8	29	16	9	11	10	9	23	2	10	4	56	10	16	59	10	29	12	11	11	40
Nov. 7	21	7	11	24	25	0	7	27	0	20	47	1	4	23	1	18	13	2	2	14	2	16	22
14	28	7	3	0	34	3	14	48	3	29	0	4	13	9	4	27	13	5	11	9	5	24	56
21	5	8	6	8	32	6	21	54	7	5	2	7	17	55	8	0	32	8	12	55	8	25	05
28	12	8	9	7	6	9	19	0	10	0	51	10	12	45	10	24	45	11	6	57	11	19	24
Dec. 5	19	8	0	2	11	0	15	20	0	28	52	1	12	47	1	27	1	2	11	30	2	26	9
12	26	8	3	10	49	3	25	25	4	9	52	4	24	5	5	8	2	5	21	43	6	5	9
19	3	9	6	18	20	7	1	17	7	14	1	7	26	35	8	8	58	8	21	11	9	3	15
26	10	9	9	15	13	9	27	6	10	8	57	10	20	49	11	2	46	11	14	54	11	27	16
Jan. 2	17	9	0	9	57	0	23	2	1	6	34	1	20	33	2	4	59	2	19	48	3	4	50

Ayanamsa on 1st Jan. : 23° 21′ 48″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	29	8	10	7	56	0R	22	54	5	0	27	8	17	00	7	22	29	7	25	49	7	26	17
3	1	9	10	8	07	0	22	50	5	1	00	8	19	03	7	24	58	7	26	51	7	27	31
5	2	9	10	8	18	0	22	47	5	1	30	8	21	05	7	27	28	7	28	16	7	29	06
7	4	9	10	8	29	0	22	46	5	1	59	8	23	07	7	29	58	8	0	00	8	0	57
9	6	9	10	8	41	0	22	45	5	2	26	8	25	10	8	2	28	8	1	58	8	3	02
11	8	9	10	8	53	0D	22	44	5	2	50	8	27	12	8	4	58	8	4	09	8	5	17
13	10	9	10	9	06	0	22	45	5	3	13	8	29	14	8	7	28	8	6	29	8	7	41
15	12	9	10	9	18	0	22	47	5	3	33	9	1	16	8	9	58	8	8	56	8	10	12
17	15	9	10	9	31	0	22	49	5	3	50	9	3	18	8	12	28	8	11	30	8	12	49
19	17	9	10	9	43	0	22	52	5	4	05	9	5	21	8	14	58	8	14	09	8	15	31
21	19	9	10	9	56	0	22	56	5	4	18	9	7	23	8	17	28	8	16	53	8	18	17
23	23	9	10	10	10	0	23	01	5	4	28	9	9	25	8	19	58	8	19	41	8	21	06
25	24	9	10	10	23	0	23	06	5	4	35	9	11	27	8	22	28	8	22	33	8	24	00
27	25	9	10	10	36	0	23	13	5R	4	39	9	13	29	8	24	59	8	25	27	8	26	56
29	27	9	10	10	50	0	23	20	5	4	41	9	15	31	8	27	29	8	28	25	8	29	55
31	29	9	10	11	04	0	23	27	5	4	39	9	17	33	8	29	59	9	1	26	9	2	58
Feb. 2	1	10	10	11	18	0	23	36	5	4	35	9	19	34	9	2	29	9	4	30	9	6	03
4	3	10	10	11	32	0	23	45	5	4	27	9	21	36	9	4	59	9	7s	37	9	9	11
6	5	10	10	11	46	0	23	55	5	4	16	9	23	38	9	7	29	9	10	46	9	12	22
8	7	10	10	12	00	0	24	06	5	4	02	9	25	39	9	9	59	9	13	59	9	15	37
10	9	10	10	12	14	0	24	18	5	3	45	9	27	41	9	12	29	9	17	15	9	18	54
12	11	10	10	12s	29	0	24	30	5	3	24	9	29	42	9	14	59	9	20	34	9	22	15
14	13	10	10	12	43	0	24	43	5	3	01	10	1	43	9	17	29	9	23	56	9	25	39
16	15	10	10	12	58	0	24	56	5	2	34	10	3	45	9	19	59	9	27	22	9	29	06
18	18	10	10	13	12	0	25	10	5	2	05	10	5	46	9	22	29	10	0	51	10	2	38
20	20	10	10	13	27	0	25	25	5	1	33	10	7	47	9	24	59	10	4	25	10	6	12
22	22	10	10	13	41	0	25	40	5	0	58	10	9	47	9	27	29	10	8	01	10	9	51
24	24	10	10	13	56	0	25	56	5	0	21	10	11	48	9	29	59	10	11⊙	42	10	13	33
26	26	10	10	14⊙	11	0	26	12	4	29	41	10	13	49	10	2	29	10	15	25	10	17	18
28	27	10	10	14	25	0	26	29	4	28	59	10	15	49	10	4	58	10	19	12	10	21	07
Mar. 2	29	10	10	14	40	0	26	47	4	28	16	10	17	50	10	7	28	10	23	02	10	24	57
4	1	11	10	14	54	0	27	05	4	27	31	10	19	50	10	9s	58	10	26	53	10	28	48
6	3	11	10	15	09	0	27	24	4	26	45	10	21	51	10	12	28	11	0	44	11	2r	39
8	5	11	10	15	24	0	27	43	4	25⊙	58	10	23	51	10	14	57	11	4	34	11	6	27
10	7	11	10	15	38	0	28	02	4	25	10	10	25	51	10	17	27	11	8	19	11	10	10
12	9	11	10	15	53	0	28	22	4	24	23	10	27	50	10	19	56	11	11	58	11	13	43
14	12	11	10	16	07	0	28	43	4	23	36	10	29	50	10	22	26	11	15	26	11	17	04
16	14	11	10	16	21	0	29	04	4	22	50	11	1	50	10	24	55	11	18	39	11	20	09
18	16	11	10	16	36	0	29	25	4	22	04	11	3	49	10	27	25	11	21	34	11	22	53
20	18	11	10	16r	50	0	29	47	4	21	20	11	5	48	10	29	54	11	24	07	11	25	14
22	20	11	10	17	04	1	0	09	4	20	38	11	7	47	11	2	23	11	26	14	11	27	08
24	22	11	10	17	18	1	0	31	4	19	58	11	9	46	11	4	53	11	27	54	11	28	33
26	24	11	10	17	32	1	0	54	4	19	19	11	11	45	11	7	22	11	29	04	11	29	28
28	26	11	10	17	45	1	1	17	4	18	43	11	13	44	11	9	51	11	29	44	11R	29	52
30	28	11	10	17	59	1	1	40	4	18	10	11	15	43	11	12	20	11	29	53	11	29	46
Apr. 1	29	11	10	18	12	1	2	04	4	17	39	11	17	41	11	14	49	11	29s	33	11	29	14
3	2	12	10	18	26	1	2	28	4	17	11	11	19	39	11	17	18	11	28	48	11	28	17
5	4	12	10	18	39	1	2	53	4	16	47	11	21	38	11	19	46	11	27	41	11	27	01
7	6	12	10	18	52	1	3	17	4	16	25	11	23	36	11	22	16	11	26	19	11	25⊙	34
9	8	12	10	19	05	1	3	42	4	16	07	11	25	34	11	24	45	11	24	47	11	24	01
11	10	12	10	19	17	1	4	07	4	15	51	11	27	32	11	27	13	11	23	15	11	22	30
13	12	12	10	19	30	1	4	33	4	15	39	11	29	29	11	29⊙	42	11	21	47	11	21	08
15	14	12	10	19	42	1	4	59	4	15	30	0	1	27	0	2	10	11	20	31	11	19	59
17	17	12	10	19	54	1	5	24	4	15	24	0	3	24	0	4	39	11	19	31	11	19r	07

Ayanamsa on 1st Jan. : 23° 21′ 48″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श	♄	श	बृ	♃	बृ	म	♂	म	र	☉	र	शु	♀	शु	बु	☿	बु	☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr 17	17	12	10	19	54	1	5	24	4	R15	24	0	3	24	0	4s	39	11	19s	31	11	19r	07
19	19	12	10	20	06	1	5	50	4	D15	22	0	5	21	0	7	07	11	18	49	11	18	35
21	20	12	10	20	18	1	6	17	4	15	22	0	7	18	0	9	36	11	18	26	11D	18	23
23	22	12	10	20	29	1	6	43	4	15	25	0	9	15	0	12	04	11	18	25	11	18	31
25	24	12	10	20	40	1	7	10	4	15	31	0	11	12	0	14	32	11	18	43	11	18	59
27	26	12	10	20	51	1	7	37	4	15	39	0	13	09	0	17	00	11	19	20	11	19	45
29	28	12	10	21	02	1	8	04	4	15	51	0	15	06	0	19	28	11	20	15	11	20	49
May 1	30	12	10	21	12	1	8	31	4	16	05	0	17	02	0	21	57	11	21	26	11	22	08
3	2	1	10	21	22	1	8	58	4	16	21	0	18	59	0	24	25	11	22	53	11	23	42
5	4	1	10	21	32	1	9	25	4	16	40	0	20	55	0	26r	53	11	24	34	11	25	29
7	7	1	10	21	42	1	9	53	4	17	02	0	22	51	0	29	20	11	26	27	11	27	28
9	9	1	10	21	51	1	10	20	4	17	25	0	24	47	1	1	48	11	28	32	11	29	39
11	11	1	10	22	00	1	10	48	4	17	51	0	26	43	1	4	16	0	0	49	0	2	01
13	13	1	10	22	09	1	11	16	4	18	19	0	28	39	1	6	44	0	3	16	0	4	33
15	15	1	10	22	17	1	11	33	4	18	49	1	0	35	1	9	11	0	5	53	0	7	15
17	17	1	10	22	25	1	12s	11	4	19	21	1	2	30	1	11	39	0	8	39	0	10	06
19	19	1	10	22	33	1	12	39	4	19	55	1	4	26	1	14	06	0	11	35	0	13	06
21	21	1	10	22	40	1	13	07	4	20	30	1	6	21	1	16	34	0	14	40	0	16	16
23	22	1	10	22	47	1	13	35	4	21	07	1	8	17	1	19	01	0	17	04	0	19	35
25	24	1	10	22	54	1	14	03	4	21	46	1	10	12	1	21	28	0	21	17	0	23	02
27	26	1	10	23	00	1	14	31	4	22	27	1	12	07	1	23	56	0	24	50	0	26	39
29	28	1	10	23	06	1	14	59	4	23	09	1	14	03	1	26	23	0	28	31	1	0s	24
31	1	2	10	23	12	1	15	27	4	23	52	1	15	58	1	28	50	1	2	20	1	4	19
June 2	3	2	10	23	17	1	15	55	4	24	37	1	17	53	2	1	17	1	6	19	1	8	21
4	5	2	10	23	22	1	16	23	4	25	23	1	19	48	2	3	44	1	10	25	1	12	30
6	7	2	10	23	27	1	16	51	4	26	11	1	21	43	2	6	11	1	14	38	1	16	46
8	10	2	10	23	31	1	17	19	4	27	00	1	23	37	2	8	38	1	18	56	1	21	07
10	12	2	10	23	35	1	17	47	4	27	50	1	25	32	2	11	05	1	23	18	1	25	30
12	14	2	10	23	38	1	18	15	4	28	41	1	27	27	2	13	32	1	27	42	1	29	54
14	15	2	0	23	41	1	18r	43	4	29	33	1	29	21	2	15	59	2	2	06	2	4	17
16	17	2	10	23	44	1	19	10	5	0	26	2	1	16	2	18	25	2	6	27	2	8	36
18	19	2	10	23	46	1	19	38	5	1	21	2	3	10	2	20	52	2	10	43	2	12	49
20	21	2	10	23	48	1	20	05	5	2	16	2	5	05	2	23	19	2	14r	54	2	16	56
22	23	2	10	23	49	1	20	33	5	3	12	2	6	59	2	25	45	2	18	57	2	20	56
24	25	2	10	23	50	1	21	00	5	4	09	2	8	54	2	28	12	2	22	53	2	24	48
26	27	2	10	23	51	1	21	27	5	5	07	2	10	48	3	0	38	2	26	40	2	28	31
28	29	2	10R	23	51	1	21	54	5	6	06	2	12	43	3	3	04	3	0	19	3	2	05
30	1	3	10	23	51	1	22	21	5	7	06	2	14	37	3	5	31	3	3	50	3	5	31
July 2	4	3	10	23	50	1	22	48	5	8	07	2	16	32	3	7	57	3	7	11	3	8	49
4	6	3	10	23	49	1	23	15	5	9	09	2	18	26	3	10	23	3	10	24	3	11	57
6	8	3	10	23	48	1	23	41	5	10	11	2	20	21	3	12	49	3	13	28	3	14	56
8	10	3	10	23	46	1	24	07	5	11	14	2	22	15	3	15	15	3	16	23	3	17	47
10	12	3	10	23	44	1	24	33	5	12	18	2	24	09	3	17	41	3	19	09	3	20	28
12	14	3	10	23	42	1	24	59	5	13	22	2	26	04	3	20	07	3	21	45	3	23	00
14	16	3	10	23	39	1	25	25	5	14	27	2	27	58	3	22	33	3	24	12	3	25	21
16	18	3	10	23	35	1	25	50	5	15	33	2	29	53	3	24	58	3	26	28	3	27	32
18	19	3	10	23	32	1	26	16	5	16	39	3	1	47	3	27	24	3	28	33	3	29	32
20	21	3	10	23	28	1	26	41	5	17	46	3	3	42	3	29	49	4	0	27	4	1	19
22	23	3	10	23	23	1	27	05	5	18	54	3	5	36	4	2	15	4	2	08	4	2	53
24	25	3	10	23	19	1	27	30	5	20	02	3	7	31	4	4	40	4	3	35	4	4	13
26	28	3	10	23	14	1	27	54	5	21	11	3	9	25	4	7	05	4	4	47	4	5	17
28	30	3	10	23	08	1	28	18	5	22	21	3	11	20	4	9	30	4	5	43	4	6	05
30	2	4	10	23	02	1	28	41	5	23	31	3	13	15	4	11	55	4	6	22	4	6	34
Aug. 1	5	4	10	22	56	1	29	05	5	24	42	3	15	10	4	14	20	4R	6	41	4	6	43

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Ayanamsa on 1st Jan. : 23° 21′ 48″

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ बृ	मं ♂ मं	र ⊙ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	5	4	10R22 56	1 29 05	5 24 42	3 15 10	4 14 20	4R6 41	4 6 43
3	7	4	10 22 50	1 29 28	5 25 53	3 17 05	4 16 45	4 6s40	4 6 32
5	9	4	10 22 43	1 29 50	5 27 04	3 18 59	4 19 10	4 6 18	4 5 59
7	11	4	10 22 36	2 0 13	5 28 17	3 20 54	4 21 34	4 5 35	4 5 06
9	12	4	10 22 29	2 0 35	5 29 29	3 22 49	4 23 59	4 4 33	4 3 55
11	14	4	10 22 22	2 0 56	6 0 43	3 24 44	4 26 23	4 3 13	4 2 28
13	16	4	10 22 14	2 1 18	6 1 56	3 26 40	4 28 47	4 1 41	4 0 51
15	18	4	10 22 06	2 1 38	6 3 11	3 28 15	5 1 11	4 0 01	3 29 11
17	20	4	10 21 58	2 1 59	6 4 25	4 0 30	5 3 35	3 28 22	3 27 35
19	22	4	10 21 50	2 2 19	6 5 41	4 2 25	5 5 58	3 26 50	3 26 10
21	24	4	10 21 42	2 2 38	6 6 56	4 4 21	5 8 22	3 25 35	3 25r05
23	26	4	10 21 33	2 2 58	6 8 12	4 6 17	5 10 45	3 24 42	3 24 25
25	28	4	10 21 24	2 3 16	6 9 29	4 8 12	5 13 08	3D24 16	3 24 15
27	1	5	10 21 15	2 3 35	6 10 46	4 10 08	5 15 31	3 24 21	3 24 36
29	3	5	10 21 06	2 3 52	6 12 03	4 12 04	5 17 54	3 24 59	3 25 30
31	5	5	10 20 57	2 4 10	6 13 21	4 14 00	5 20 17	3 26 08	3 26 55
Sept. 2	7	5	10 20 48	2 4 26	6 14 39	4 15 56	5 22 40	3 27 49	3 28 50
4	9	5	10 20 39	2 4 42	6 15 58	4 17 53	5 25 02	3 29 59	4 1 13
6	11	5	10 20 30	2 4 58	6 17 17	4 19 49	5 27 24	4 2 33	4 3 59
8	13	5	10 20 21	2 5 13	6 18 37	4 21 45	5 29 46	4 5 30	4 7 05
10	15	5	10 20 12	2 5 28	6 19 56	4 23 42	6 2 07	4 8 43	4 10 25
12	16	5	10 20 02	2 5 42	6 21 17	4 25 39	6 4 29	4 12 10	4 13 57
14	18	5	10 19 53	2 5 55	6 22 38	4 27 35	6 6 50	4 15 46	4 17 36
16	20	5	10 19 44	2 6 08	6 23 59	4 29 32	6 9 11	4 19s27	4 21 19
18	22	5	10 19 35	2 6 20	6 25 20	5 1 29	6 11 31	4 23 11	4 25 03
20	25	5	10 19 27	2 6 31	6 26 42	5 3 27	6 13 52	4 26 56	4 28 48
22	27	5	10 19 18	2 6 42	6 28 04	5 5 24	6 16 12	5 0 39	5 2 31
24	29	5	10 19 09	2 6 52	6 29 27	5 7 21	6 18 32	5 4 21	5 6 11
26	1	6	10 19 01	2 7 01	7 0 50	5 9 19	6 20 51	5 8 00	5 9 48
28	4	6	10 18 53	2 7 10	7 2 13	5 11 17	6 23 10	5 11 36	5 13 23
30	6	6	10 18 45	2 7 18	7 3 37	5 13 15	6 25 29	5 15 08	5 16 53
Oct. 2	8	6	10 18 37	2 7 25	7 5 01	5 15 13	6 27 48	5 18 38	5 20 21
4	9	6	10 18 29	2 7 32	7 6 26	5 17 11	7 0 06	5 22 03	5 23 45
6	11	6	10 18 22	2 7 38	7 7 50	5 19 09	7 2 24	5 25 25	5 27 05
8	13	6	10 18 15	2 7 43	7 9 15	5 21 07	7 4 41	5 28 44	6 0 23
10	15	6	10 18 08	2 7 47	7 10 41	5 23 06	7 6 58	6 2 00	6 3 37
12	17	6	10 18 02	2 7 50	7 12 06	5 25 05	7 9 15	6 5 13	6 6 48
14	19	6	10 17 56	2 7 53	7 13 32	5 27 03	7 11 31	6 8 23	6 9 57
16	21	6	10 17 50	2 7 55	7 14 59	5 29 02	7 13 46	6 11 30	6 13 03
18	23	6	10 17 44	2R7 56	7 16 25	6 1 01	7 16 01	6 14 35	6 16r07
20	25	6	10 17 39	2 7 56	7 17 52	6 3 01	7 18 15	6 17 37	6 19 07
22	28	6	10 17 34	2 7 56	7 19 20	6 5 00	7 20 29	6 20 37	6 22 06
24	30	6	10 17 30	2 7 55	7 20 47	6 7 00	7 22 42	6 23 34	6 25 02
26	2	7	10 17 26	2 7 53	7 22 15	6 8 59	7 24 55	6 26 29	6 27 55
28	4	7	10 17 22	2 7 50	7 23 43	6 10 59	7 27 07	6 29 21	7 0 46
30	6	7	10 17 19	2 7 46	7 25 12	6 12 59	7 29 18	7 2 10	7 3 33
Nov. 1	8	7	10 17 16	2 7 41	7 26 41	6 14 59	8 1 28	7 4 56	7 6 17
3	9	7	10 17 13	2 7 36	7 28 10	6 16 59	8 3 27	7 7 37	7 8 57
5	11	7	10 17 11	2 7 30	7 29 39	6 18 59	8 5 45	7 10 15	7 11 32
7	13	7	10 17 09	2 7 23	8 1 08	6 21 00	8 7 53	7 12 47	7 14 01
9	15	7	10 17 08	2 7 16	8 2 38	6 23 00	8 9 59	7 15 13	7 16 23
11	17	7	10 17 07	2 7 07	8 4 08	6 25 01	8 12 04	7 17 31	7 18 36
13	20	7	10 17 07	2 6 58	8 5 38	6 27 01	8 14 07	7 19 39	7 20 38
15	22	7	10D17 07	2 6 49	8 7 09	6 29 02	8 16 10	7 21 34	7 22 25

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	22	7	10D17 07	2R6 49	8 7 09	6 29 02	8 16 10	7 21 34	7 22 25
17	24	7	10 17 07	2 6 38	8 8 40	7 1 03	8 18 10	7 23 12	7 23 54
19	26	7	10 17 08	2 6 27	8 10 11	7 3 04	8 20 10	7 24 30	7 24 59
21	28	7	10 17 09	2 6 15	8 11 42	7 5 05	8 22 07	7 25 22	7 25 36
23	30	7	10 17 11	2 6 03	8 13 13	7 7 07	8 24 03	7R25 42	7 25 38
25	2	8	10 17 13	2 5 50	8 14 45	7 9 08	8 25 57	7 25 23	7 24s59
27	4	8	10 17 15	2 5 37	8 16 17	7 11 09	8 27 49	7 24 23	7 23 37
29	6	8	10 17 18	2 5 23	8 17 49	7 13 11	8 29 38	7 22 40	7 21 34
Dec. 1	8	8	10 17 22	2 5 09	8 19 21	7 15 13	9 1 25	7 20 20	7 19 01
3	10	8	10 17 25	2 4 54	8 20 54	7 17 14	9 3 09	7 17☉39	7 16 16
5	12	8	10 17 30	2 4 39	8 22 26	7 19 16	9 4 50	7 14 56	7 13 41
7	14	8	10 17 34	2 4 23	8 23 59	7 21 18	9 6 28	7 12 33	7 11r34
9	16	8	10 17 39	2 4 08	8 25 32	7 23 20	9 8 03	7 10 47	7 10 10
11	18	8	10 17 44	2 3 52	8 27 05	7 25 21	9 9 33	7 9 44	7D9 30
13	20	8	10 17 50	2 3 36	8 28 38	7 27 23	9 11 00	7 9 26	7 9 32
15	23	8	10 17 56	2 3 19	9 0 11	7 29 25	9 12 22	7 9 48	7 10 12
17	25	8	10 18 03	2 3 03	9 1 45	8 1 28	9 13 39	7 10 43	7 11 22
19	27	8	10 18 10	2 2☉47	9 3 19	8 3 30	9 14 51	7 12 07	7 12 56
21	29	8	10 18 17	2 2 30	9 4 52	8 5 32	9 15 58	7 13 51	7 14 50
23	1	9	10 18 25	2 2 14	9 6 26	8 7 34	9 16 58	7 15 53	7 16 59
25	2	9	10 18 33	2 1 58	9 8 00	8 9 37	9 17 52	7 18 07	7 19 18
27	4	9	10 18 41	2 1 42	9 9 35	8 11 39	9 18 39	7 20 32	7 21 47
29	6	9	10 18 49	2 1 26	9 11 09	8 13 41	9 19 18	7 23 04	7 24 23
31	8	9	10 18 58	2 1 11	9 12 43	8 15 43	9 19 49	7 25 42	7 27 04
Jan. 2	10	9	10 19 03	2 0 56	9 14 27	8 17 46	9 20 11	7 28 26	7 29 49

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	1 29 36	1 28 37	4R21 26	6 25 57	4 R22 25	23 21 48
February	1	1 28 32	1 26 58	4 20 41	6 26 32	4 22 28	23 21 53
March	1	1 25 52	1 25 29	4 19 33	6R 26 37	4 21 49	23 21 57
April	1	1 22 27	1 23 51	4 18 16	6 26 13	4 21 0	23 22 0
May	1	1 20 36	1 22 15	4 17 28	6 25 30	4 20 27	23 22 3
June	1	1 20 20	1 20 37	4D17 24	6 24 41	4D20 20	23 22 8
July	1	1 20 16	1 19 1	4 18 8	6 24 5	4 20 39	23 22 14
August	1	1 18 54	1 17 23	4 19 34	6D23 52	4 21 24	23 22 19
September	1	1 15 54	1 15 44	4 21 25	6 24 9	4 22 27	23 22 23
October	1	1 12 51	1 14 9	4 23 17	6 24 53	4 23 30	23 22 26
November	1	1 11 19	1 12 30	4 24 56	6 25 56	4 24 26	23 22 30
December	1	1 11 15	1 10 55	4 25 59	6 27 3	4 24 58	23 22 35
January	1	1 10 52	1 9 16	4R 26 14	6 28 3	4R25 3	23 22 40

Combustion or Heliacal Setting of Planets

Saturn	:	From Feb. 12 to Mar. 19.
Jupiter	:	From May 17 to June 13.
Mars	:	— —
Venus	:	From Mar. 4 to May 5.
Mercury	:	From Feb. 4 to Mar. 7, Apr. 1 to Apr. 18, May 30 to June 20, Aug. 3 to Aug. 22, Sept. 16 to Oct. 19, Nov. 26 to Dec. 8.

Retrogression of Planets

PLANET	RETROGRADE Date	h	m	Long. s	°	′	DIRECT Date	h	m	Long. s	°	′
Mercury	Mar. 29,	20	27	11	29	53	Apr. 22,	9	33	11	18	23
	Aug. 1,	27	21	4	6	43	Aug. 25,	21	50	3	24	15
	Nov. 23,	7	28	7	25	42	Dec. 12,	26	26	7	9	26
Venus	—	—		—			—	—		—		
Mars	Jan. 28,	28	7	5	4	41	Apr. 19,	27	31	4	15	21
Jupiter	—	—		—			Jan. 10,	15	1	0	22	44
	Oct. 19,	24	58	2	7	56	—	—		—		
Saturn	June 28,	11	5	10	23	51	Nov. 14,	8	44	10	17	7
Uranus	—	—		—			May 18,	20	9	4	17	20
	Dec. 25,	11	41	4	26	15	—	—		—		
Neptune	Feb. 20,	7	17	6	26	39	July 29,	22	33	6	23	52
Pluto	—	—		—			May 25,	8	54	4	20	19
	Dec. 21,	9	53	4	25	5	—	—		—		

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	2	26	37	Pauṣa	Sukla	Jan.	17	19	7	Māgha	Vadi
Feb.	1	22	6	Māgha	,,	Feb.	16	5	57	Phālguna	,,
Mar.	3	15	26	Phālguna	,,	Mar.	17	16	54	Caitra	,,
Apr.	2	5	51	Caitra	,,	Apr.	15	28	32	Vaiśākha	,,
May	1	17	26	Vaiśākha	,,	May	15	17	22	Jyaiṣṭha	,,
May	30	26	43	Jyaiṣṭha	,,	June	14	7	29	Āṣāḍha	,,
June	29	10	22	Āṣāḍha	,,	July	13	22	31	Śrāvaṇa	,,
July	28	17	15	Śrāvaṇa	,,	Aug.	12	13	52	Bhādra	,,
Aug.	26	24	20	Bhādra	,,	Sept.	10	29	2	Āśvina	,,
Sept.	25	8	48	Āśvina	,,	Oct.	10	19	44	Kārtika	,,
Oct.	24	19	41	Kārtika	,,	Nov.	9	9	45	Agrahā	,,
Nov.	23	9	40	Agrahā	,,	Dec.	8	22	51	Pauṣa	,,
Dec.	22	26	33	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	23	31	Karkaṭa	on	July	16	8	36
Kumbha	on	Feb.	12	12	33	Siṁha	on	Aug.	16	16	59
Mīna	on	Mar.	14	9	30	Kanyā	on	Sept.	16	16	53
Meṣa	on	Apr.	13	18	5	Tulā	on	Oct.	16	28	46
Vṛṣa	on	May	14	15	2	Vṛścika	on	Nov.	15	28	30
Mithuna	on	June	14	21	42	Dhanus	on	Dec.	15	19	5

1966 A.D. Longitude of Moon CONDENSED

Saka era 1887-88, Samvat 2022-23 (Mar. 23, Nov. 13), B.S 1372-73 (Apr. 15), Kollam era 1141-42 (Aug. 17), 40 Parabhava (Mar. 23, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ 5) at 5-30 A.M. I.S.T. Sunday	Monday	Tuesday	Wednes	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 26	10 9	9 15 13	9 27 6	10 8 57	10 20 49	11 2 46	11 14 54	11 27 16
Jan. 2	17 9	0 9 57	0 23 2	1 6 34	1 20 33	2 4 59	2 19 48	3 4 50
9	24 9	3 19 58	4 5 1	4 19 50	5 4 19	5 18 23	6 2 4	6 15 22
16	2 10	6 28 19	7 11 0	7 23 27	8 5 44	8 17 53	8 29 55	9 11 53
23	9 10	9 23 47	10 5 39	10 17 30	10 29 23	11 11 21	11 23 26	0 5 44
30	16 10	0 18 19	1 1 15	1 14 38	1 28 30	2 12 51	2 27 40	3 12 50
Feb. 6	23 10	3 28 11	4 13 31	4 28 40	5 13 57	5 27 46	6 11 37	6 24 59
13	1 11	7 7 56	7 20 31	8 2 51	8 14 59	8 26 58	9 8 53	9 20 46
20	8 11	10 2 37	10 14 30	10 26 24	11 8 22	11 20 25	0 2 35	0 14 56
27	15 11	0 27 30	1 10 23	1 23 38	2 7 19	2 21 27	3 6 2	3 21 [illegible]
Mar. 6	22 11	4 6 14	4 21 32	5 6 44	5 21 39	6 6 9	6 20 10	7 3 42
13	29 11	7 16 46	7 29 25	8 11 46	8 23 53	9 5 50	9 17 42	9 29 33
20	6 12	10 11 25	10 23 20	11 5 20	11 17 26	11 29 40	0 12 2	0 24 35
27	13 12	1 7 19	1 20 19	2 3 36	2 17 12	3 1 10	3 15 29	4 0 8
Apr. 3	20 12	4 15 0	4 29 58	5 14 55	5 29 40	6 14 6	6 28 8	7 11 44
10	27 12	7 24 53	8 7 39	8 20 5	9 2 15	9 14 15	9 26 8	10 8 0
17	3 1	10 19 53	11 1 52	11 13 59	11 26 15	0 8 42	0 21 21	1 4 13
24	10 1	1 17 17	2 0 34	2 14 5	2 27 49	3 11 47	3 25 58	4 10 19
May 1	17 1	4 24 48	5 9 20	5 23 49	6 8 10	6 22 18	7 6 7	7 19 37
8	24 1	8 2 45	8 15 32	8 28 0	9 10 14	9 22 16	10 4 11	10 16 4
15	1 2	10 27 59	11 10 1	11 22 12	0 4 37	0 17 17	1 0 14	1 13 27
22	8 2	1 26 56	2 10 38	2 24 33	3 8 36	3 22 46	4 7 00	4 21 14
29	15 2	5 5 26	5 19 35	6 3 36	6 17 29	7 1 11	7 14 39	7 27 52
June 5	22 2	8 10 49	8 23 30	9 5 56	9 18 8	10 0 10	10 12 6	10 23 59
12	29 2	11 5 54	11 17 56	0 0 9	0 12 38	0 25 26	1 8 36	1 22 7
19	4 3	2 5 59	2 20 9	3 4 31	3 19 1	4 3 31	4 17 58	5 2 15
26	11 3	5 16 22	6 0 17	6 13 58	6 27 27	7 10 44	7 23 49	8 6 42
July 3	18 3	8 19 22	9 1 52	9 14 10	9 26 17	10 8 17	10 20 11	11 2 2
10	25 3	11 13 56	11 25 56	0 8 7	0 20 36	1 3 25	1 16 40	2 0 21
17	1 4	2 14 28	2 28 58	3 13 45	3 28 40	4 13 35	4 28 20	5 12 51
24	8 4	5 27 2	6 10 54	6 24 26	7 7 40	7 20 39	8 3 25	8 16 0
31	15 4	8 28 24	9 10 40	9 22 48	10 4 49	10 16 45	10 28 36	11 10 26
Aug. 7	22 4	11 22 19	0 4 17	0 16 27	0 28 52	1 11 39	1 24 51	2 8 32
14	29 4	2 22 42	3 7 20	3 22 19	4 7 31	4 22 44	5 7 48	5 22 35
21	4 5	6 6 58	6 20 56	7 4 29	7 17 39	8 0 30	8 13 5	8 25 27
28	11 5	9 7 40	9 19 45	10 1 44	10 13 39	10 25 32	11 7 22	11 19 14
Sept. 4	18 5	0 1 8	0 13 8	0 25 19	1 7 44	1 20 27	2 3 35	2 17 9
11	25 5	3 1 12	3 15 44	4 0 40	4 15 52	5 1 10	5 16 24	6 1 21
18	1 6	6 15 57	7 0 5	7 13 46	7 27 0	8 9 52	8 22 24	9 4 41
25	8 6	9 16 47	9 28 46	10 10 40	10 22 32	11 4 24	11 16 17	11 28 13
Oct. 2	15 6	0 10 14	0 22 23	1 4 41	1 17 12	1 29 59	2 13 6	2 26 35
9	22 6	3 10 28	3 24 45	4 9 25	4 24 22	5 9 27	5 24 33	6 9 29
16	29 6	6 24 8	7 8 23	7 22 11	8 5 34	8 18 31	9 1 6	9 13 25
23	6 7	9 25 30	10 7 26	10 19 18	11 1 9	11 13 2	11 25 0	0 7 4
30	13 7	0 19 17	1 1 41	1 14 15	1 27 2	2 10 3	2 23 18	3 6 50
Nov. 6	20 7	3 20 39	4 4 44	4 19 5	5 3 37	5 18 18	6 3 1	6 17 39
13	27 7	7 2 5	7 16 15	8 0 4	8 13 29	8 26 31	9 9 12	9 21 33
20	4 8	10 3 40	10 15 37	10 27 28	11 9 19	11 21 14	0 8 16	0 15 29
27	11 8	0 27 55	1 10 36	1 23 32	2 6 42	2 20 7	3 8 44	3 17 32
Dec. 4	18 8	4 1 28	4 15 31	4 29 40	5 13 53	5 28 8	6 12 21	6 26 31
11	25 8	7 10 34	7 24 25	8 8 1	8 21 19	9 4 18	9 16 59	9 29 22
18	2 9	10 11 30	10 23 27	11 5 18	11 17 8	11 29 2	0 11 6	0 23 23
25	9 9	1 5 57	1 18 52	2 2 8	2 15 43	2 29 36	3 13 42	3 27 57
Jan. 1	16 9	4 12 14	4 26 30	5 10 42	5 24 48	6 8 46	6 22 37	7 6 21

Longitudes of Planets

***Ayanamsa* on 1st Jan. : 23° 22′ 40″**

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ नि	गु ♃ रु	म ♂ ल	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	9	9	10 19 03	2R 1 03	9 13 30	8 16 45	9 20 01	7 27 04	7 28 26
3	11	9	10 19 13	2 0 48	9 15 05	8 18 47	9 20 18	7 29 49	8 1 13
5	13	9	10 19 22	2 0 34	9 16 39	8 20 49	9R20 27	8 2 38	8 4 04
7	15	9	10 19 32	2 0 20	9 18 14	8 22 51	9 20 25	8 5 30	8 6 58
9	18	9	10 19 43	2 0 06	9 19 48	8 24 51	9 20 13	8 8 25	8 9 54
11	20	9	10 19 53	1 29 53	9 21 23	8 26 56	9 19 52	8 11 23	8 12 52
13	22	9	10 20 04	1 29 40	9 22 58	8 28 58	9 19 20	8 14 22	8 15 53
15	24	9	10 20 15	1 29 28	9 24 32	9 1 00	9 18 39	8 17 24	8 18 56
17	26	9	10 20 27	1 29 17	9 26 07	9 3 03	9 17 49	8 20s28	8 22 00
19	28	9	10 20 38	1 29 06	9 27 42	9 5 05	9 16 51	8 25 34	8 25 08
21	30	9	10 20 50	1 28 56	9 29 17	9 7 07	9 15 47	8 26 42	8 28 17
23	2	10	10 21 02	1 28 46	10 0 52	9 9 09	9 14s37	8 29 52	9 1 28
25	4	10	10 21 15	1 28 37	10 2 26	9 11 11	9 13 24	9 3 05	9 4 42
27	5	10	10 21 27	1 28 29	10 4 01	9 13 13	9 12⊙10	9 6 20	9 7 59
29	7	10	10 21 40	1 28 22	10 5 36	9 15 15	9 10r57	9 9 38	9 11 18
31	9	10	10 21 53	1 28 16	10 7 11	9 17 17	9 9 47	9 12 58	9 14 40
Feb. 2	11	10	10 22 06	1 28 10	10 8 45	9 19 19	9 8 41	9 16 22	9 18 04
4	14	10	10 22 19	1 28 05	10 10 20	9 21 20	9 7 41	9 19 48	9 21 32
6	16	10	10 22 33	1 28 01	10 11 55	9 23 22	9 6 50	9 23⊙17	9 25 02
8	18	10	10 22 47	1 27 58	10 13 29	9 25 24	9 6 07	9 26 49	9 28 36
10	21	10	10 23 00	1 27 55	10 15 04	9 27 25	9 5 33	10 0 23	10 2 12
12	23	10	10 23 14	1 27 53	10 16 38	9 29 26	9 5 09	10 4 01	10 5 50
14	25	10	10 23 28	1 27 52	10 18 13	10 1 28	9 4 55	10 7 40	10 9 30
16	26	10	10 23 42	1D27 52	10 19 47	10 3 29	9D4 52	10 11 21	10 13 12
18	28	10	10 23 57	1 27 53	10 21 21	10 5 30	9 4 57	10 15r02	10 16 53
20	30	10	10 24 11	1 27 54	10 22 56	10 7 31	9 5 13	10 18 43	10 20 32
22	2	11	10 24 25	1 27 57	10 24 30	10 9 32	9 5 36	10 22 20	10 24 06
24	4	11	10 24s40	1 28 00	10 26 04	10 11 33	9 6 09	10 25 51	10 27 33
26	6	11	10 24 54	1 28 04	10 27s38	10 13 34	9 6 49	10 29 13	11 0 49
28	8	11	10 25 09	1 28 08	10 29 12	10 15 34	9 7 36	11 2 21	11 3 49
Mar. 2	10	11	10 25 24	1 28 14	11 0 45	10 17 35	9 8 30	11 5 11	11 6 28
4	12	11	10 25 38	1 28 20	11 2 19	10 19 35	9 9 31	11 7 39	11 8 42
6	14	11	10 25 53	1 28 27	11 3 52	10 21 35	9 10 37	11 9 39	11 10 27
8	17	11	10 26 08	1 28 34	11 5 25	10 23 35	9 11 49	11 11 08	11 11 39
10	19	11	10 26⊙23	1 28 43	11 6 59	10 25 35	9 13 06	11 12 02	11 12 16
12	21	11	10 26 38	1 28 52	11 8 32	10 27 35	9 14 28	11R12 22	11 12 18
14	23	11	10 26 52	1 29 02	11 10 05	10 29 34	9 15 53	11 12 06	11 11s46
16	25	11	10 27 07	1 29 12	11 11 37	11 1 34	9 17 23	11 11 18	11 10 44
18	27	11	10 27 22	1 29 23	11 13 10	11 3 34	9 18 57	11 10 04	11 9 18
20	28	11	10 27 37	1 29 35	11 14 42	11 5 33	9 20 33	11 8 29	11 7⊙37
22	30	11	10 27 51	1 29 47	11 16 15	11 7 32	9 22 13	11 6 43	11 5 49
24	2	12	10 28 06	2 0 00	11 17 47	11 9 31	9 23 56	11 4 55	11 4 03
26	4	12	10 28 21	2 0 14	11 19 19	11 11 30	9 25 41	11 3 14	11 2 28
28	6	12	10 28 35	2 0 28	11 20 51	11 13 29	9 27 29	11 1 46	11 1r09
30	8	12	10 28 49	2 0 43	11 22 22	11 15 28	9 29 18	11 0 37	11 0 11
Apr. 1	10	12	10 29 04	2 0 58	11 23 54	11 17 26	10 1 10	10 29 50	10 29 35
3	13	12	10 29r18	2 1 14	11 25 25	11 19 24	10 3 04	10 29 25	10D29 21
5	15	12	10 29 32	2 1 30	11 26 56	11 21 23	10 5 00	10 29 23	10 29 30
7	17	12	10 29 46	2 1 47	11 28 27	11 23 21	10 6 57	10 29 43	11 0 00
9	19	12	11 0 00	2 2 05	11 29 58	11 25 18	10 8 56	11 0 22	11 0 49
11	21	12	11 0 14	2 2 23	0 1 28	11 27 16	10 10 56	11 1 20	11 1 55
13	23	12	11 0 28	2 2 41	0 2 58	11 29 14	10 12 58	11 2 34	11 3 17
15	25	12	11 0 41	2 3 00	0 4 29	0 1 11	10 15 01	11 4 04	11 4 54
17	27	12	11 0 55	2 3 19	0 5 59	0 3 09	10 17 05	11 5 47	11 6 43

Ayanamsa on 1st Jan. : 23° 22′ 40″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		शा ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.17	27	12	11 0 55	2 3 19	0 5s59	0 3 09	10 17 05	11 5 47	11 6 43
19	29	12	11 1 08	2 3 39	0 7 28	0 5 06	10 19 11	11 7 42	11 8 44
21	1	1	11 1 21	2 3 59	0 8 58	0 7 03	10 21 17	11 9 49	11 10 56
23	3	1	11 1 34	2 4 19	0 10 27	0 9 01	10 23 24	11 12 06	11 13 18
25	5	1	11 1 46	2 4 40	0 11 56	0 10 58	10 25 32	11 14 32	11 15 49
27	7	1	11 1 59	2 5 01	0 13 25	0 12 54	10 27 41	11 17 08	11 18 29
29	9	1	11 2 11	2 5 23	0 14⊙54	0 14 51	10 29 51	11 19 52	11 21 17
May 1	11	1	11 2 23	2 5 45	0 16 23	0 16 48	11 2 01	11 22 45	11 24 14
3	13	1	11 2 35	2 6 07	0 17 51	0 18 44	11 4 13	11 25 45	11 27 18
5	16	1	11 2 47	2 6 30	0 19 19	0 20 40	11 6 24	11 28 53	0 0 30
7	18	1	11 2 58	2 6 53	0 20 47	0 22 36	11 8 37	0 2 09	0 3 50
9	20	1	11 3 09	2 7 16	0 22 15	0 24 34	11 10 50	0 5 33	0 7 17
11	22	1	11 3 20	2 7 40	0 23 42	0 26 28	11 13 04	0 9 04	0 10 53
13	23	1	11 3 31	2 8 03	0 25 09	0 28 24	11 15 18	0 12s43	0 14 36
15	25	1	11 3 41	2 8 27	0 26 37	1 0 20	11 17 33	0 16 30	0 18 26
17	27	1	11 3 51	2 8 52	0 28 03	1 2 16	11 19 48	0 20 25	0 22 25
19	29	1	11 4 01	2 9 16	0 29 30	1 4 11	11 22 03	0 24 27	0 26 30
21	1	2	11 4 11	2 9 41	1 0 57	1 6 07	11 24 19	0 28 35	1 0 42
23	3	2	11 4 20	2 10 06	1 2 23	1 8 02	11 26 36	1 2 50	1 4 59
25	5	2	11 4 29	2 10 31	1 3 49	1 9 58	11 28 53	1 7 10	1 9 21
27	6	2	11 4 38	2 10 56	1 5 15	1 11 53	0 1 10	1 11⊙32	1 13 44
29	10	2	11 4 46	2 11 22	1 6 40	1 13 48	0 3 27	1 15 56	1 18 08
31	12	2	11 4 54	2 11 48	1 8 06	1 15 43	0 5 45	1 20 19	1 22 29
June 2	14	2	11 5 02	2 12 13	1 9 31	1 17 38	0 8 03	1 24 39	1 26 47
4	16	2	11 5 09	2 12 39	1 10 56	1 19 33	0 10 22	1 28r53	2 0 58
6	18	2	11 5 16	2 13 06	1 12 21	1 21 28	0 12 40	2 3 01	2 5 02
8	20	2	11 5 23	2 13 32	1 13 45	1 23 23	0 15 00	2 7 01	2 8 57
10	22	2	11 5 29	2 13 58	1 15 10	1 25 17	0 17 19	2 10 51	2 12 43
12	24	2	11 5 35	2 14 25	1 16 34	1 27 12	0 19 38	2 14 33	2 16 20
14	26	2	11 5 40	2 14 51	1 17 58	1 29 07	0 21 58	2 18 04	2 19 47
16	28	2	11 5 46	2 15 18	1 19 21	2 1 01	0 24 18	2 21 26	2 23 03
18	30	2	11 5 50	2 15 45	1 20 45	2 2 56	0 26 39	2 24 38	2 26 10
20	2	3	11 5 55	2 16 12	1 22 08	2 4 51	0 28 59	2 27 40	2 29 06
22	4	3	11 5 59	2 16s39	1 23 31	2 6 45	1 1 20	3 0 31	3 1 52
24	6	3	11 6 03	2 17 06	1 24 54	2 8 40	1 3 41	3 3 11	3 4 27
26	8	3	11 6 06	2 17 33	1 26 17	2 10 34	1 6 03	3 5 41	3 6 51
28	11	3	11 6 09	2 18 00	1 27 40	2 12 29	1 8 24	3 7 59	3 9 03
30	13	3	11 6 11	2 18 27	1 29 02	2 14 23	1 10 46	3 10 05	3 11 03
July 2	15	3	11 6 14	2 18 54	2 0r24	2 16 17	1 13 07	3 11 58	3 12 50
4	17	3	11 6 15	2 19 21	2 1 46	2 18 12	1 15 29	3 13 38	3 14 23
6	19	3	11 6 17	2 19⊙48	2 3 08	2 20 06	1 17 52	3 15 03	3 15 40
8	20	3	11 6 17	2 20 15	2 4 29	2 22 00	1 20 14	3 16 13	3 16 42
10	22	3	11 R6 18	2 20 42	2 5 51	2 23 55	1 22 37	3 17 07	3 17 27
12	24	3	11 6 18	2 21 09	2 7 12	2 25 49	1 25 00	3 17 43	3 17 54
14	26	3	11 6 18	2 21 36	2 8 33	2 27 44	1 27 23	3R18 00	3 18 02
16	28	3	11 6 17	2 22 03	2 9 54	2 29 38	1 29 46	3 17s59	3 17 51
18	30	3	11 6 16	2 22r30	2 11 14	3 1 33	2 2 10	3 17 38	3 17 21
20	3	4	11 6 14	2 22 57	2 12 35	3 3 27	2 4 33	3 16 59	3 16 33
22	5	4	11 6 13	2 23 24	2 13 55	3 5 22	2 6 57	3 16 02	3 15 28
24	7	4	11 6 10	2 23 51	2 15 15	3 7 16	2 9 21	3 14 51	3 14 12
26	9	4	11 6 08	2 24 17	2 16 35	3 9 11	2 11 45	3 13 30	3 12 47
28	11	4	11 6 04	2 24 44	2 17 55	3 11 06	2 14 10	3 12⊙03	3 11 20
30	13	4	11 6 01	2 25 10	2 19 14	3 13 00	2 16 34	3 10 38	3 9 57
Aug. 1	15	4	11 5 57	2 25 37	2 20 33	3 14 55	2 18 59	3 9 19	3 8 44

Ayanamsa on 1st Jan. : 23° 22′ 40″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	15	4	11R	5	57	2	25	37	2	20	33	3	14	55	2	18	59	3R	9	19	3	8s	44
3	17	4	11	5	53	2	26	03	2	21	53	3	16	50	2	21	24	3	8	13	3	7	46
5	19	4	11	5	48	2	26	29	2	23	11	3	18	45	2	23	49	3	7r	25	3	7	10
7	21	4	11	5	44	2	26	55	2	24	30	3	20	40	2	26	15	3	7	00	3D	6	57
9	22	4	11	5	38	2	27	20	2	25	49	3	22	35	2	28	40	3	7	00	3	7	11
11	24	4	11	5	33	2	27	46	2	27	07	3	24	30	3	1	06	3	7	28	3	7	52
13	27	4	11	5	27	2	28	11	2	28	26	3	26	25	3	2	32	3	8	23	3	9	01
15	29	4	11	5	21	2	28	37	2	29	44	3	28	20	3	5	58	3	9	46	3	10	38
17	1	4	11	5	14	2	29	02	3	1	01	4	0	16	3	8	24	3	11	36	3	12	41
19	3	4	11	5	07	2	29	26	3	2	19	4	2	11	3	10	50	3	13	51	3	15	08
21	6	4	11	5	00	2	29	51	3	3	37	4	4	07	3	13	17	3	16	30	3	17	58
23	8	4	11	4	53	3	0	15	3	4	54	4	6	02	3	15	44	3	19	30	3	21	06
25	10	4	11	4	45	3	0	39	3	6	11	4	7	58	3	18	11	3	22	47	3	24	31
27	12	4	11	4	37	3	1	03	3	7	28	4	9	54	3	20	38	3	26	18	3	28	08
29	14	4	11	4	29	3	1	27	3	8	45	4	11	50	3	23	05	4	0	00	4	1	54
31	15	4	11	4	21	3	1	50	3	10	02	4	13	46	3	25	32	4	3s	49	4	5	45
Sept. 2	17	4	11	4	12	3	2	13	3	11	18	4	15	42	3	28	00	4	7	42	4	9	39
4	19	4	11	4	04	3	2	36	3	12	34	4	17	38	4	0	28	4	11	36	4	13	33
6	21	4	11	3	55	3	2	58	3	13	51	4	19	34	4	2	56	4	15	30	4	17	26
8	23	4	11	3	46	3	3	20	3	15	06	4	21	31	4	5	24	4	19	22	4	21	16
10	25	4	11	3	37	3	3	42	3	16	22	4	23	27	4	7	52	4	23	10	4	25	03
12	27	4	11	3	28	3	4	04	3	17	38	4	25	24	4	10	20	4	26	55	4	28	46
14	30	4	11	3	19	3	4	25	3	18	53	4	27	21	4	12	49	5	0	36	5	2	25
16	2	5	11	3	10	3	4	45	3	20	08	4	29	18	4	15	17	5	4	13	5	6	00
18	4	5	11	3	00	3	5	06	3	21	23	5	1	15	4	17	46	5	7	46	5	9	30
20	6	5	11	2	51	3	5	25	3	22	38	5	3	12	4	20	15	5	11	14	5	12	57
22	8	5	11	2	42	3	5	45	3	23	53	5	5	09	4	22	44	5	14	38	5	16	19
24	10	5	11	2	32	3	6	04	3	25	07	5	7	07	4	25	13	5	17	59	5	19	37
26	12	5	11	2	23	3	6	23	3	26	22	5	9	04	4	27	42	5	21	15	5	22	52
28	14	5	11	2	14	3	6	41	3	27	36	5	11	02	5	0	11	5	24	28	5	26r	03
30	16	5	11	2	05	3	6	58	3	28	49	5	13	00	5	2	41	5	27	37	5	29	10
Oct. 2	18	5	11	1	56	3	7	15	4	0	03	5	14	58	5	5	10	6	0	43	6	2	14
4	19	5	11	1	47	3	7	32	4	1	17	5	16	56	5	7	40	6	3	45	6	5	15
6	21	5	11	1	38	3	7	48	4	2	30	5	18	54	5	10	09	6	6	44	6	8	12
8	23	5	11	1	30	3	8	04	4	3	43	5	20	52	5	12	39	6	9	39	6	11	06
10	26	5	11	1	21	3	8	19	4	4	56	5	22	51	5	15	09	6	12	31	6	13	56
12	28	5	11	1	13	3	8	34	4	6	09	5	24	50	5	17	39	6	15	20	6	16	43
14	30	5	11	1	05	3	8	48	4	7	21	5	26	48	5	20	09	6	18	05	6	19	25
16	3	6	11	0	57	3	9	01	4	8	33	5	28	47	5	22s	39	6	20	45	6	22	03
18	5	6	11	0	50	3	9	14	4	9	45	6	0	46	5	25	09	6	23	21	6	24	37
20	7	6	11	0	43	3	9	26	4	10	57	6	2	46	5	27	40	6	25	51	6	27	04
22	9	6	11	0	36	3	9	37	4	12	08	6	4	45	6	0	10	6	28	15	6	29	25
24	11	6	11	0	29	3	9	48	4	13	20	6	6	44	6	2	40	7	0	32	7	1	37
26	12	6	11	0	23	3	9	58	4	14	31	6	8	44	6	5	11	7	2	40	7	3	40
28	14	6	11	0	17	3	10	08	4	15	41	6	10	44	6	7	41	7	4	37	7	5	31
30	16	6	11	0	11	3	10	17	4	16	52	6	12	44	6	10	11	7	6	21	7	7	08
Nov. 1	17	6	11	0	06	3	10	25	4	18	02	6	14	43	6	12	42	7	7	49	7	8	25
3	20	6	11	0	01	3	10	32	4	19	12	6	16	44	6	15	12	7	8	56	7	9	21
5	22	6	10	29	56	3	10	39	4	20	22	6	18	44	6	17	43	7	9	39	7R	9	49
7	24	6	10	29	52	3	10	45	4	21	31	6	20	44	6	20	13	7	9	51	7	9	44
9	26	6	10	29	48	3	10	50	4	22	40	6	22	45	6	22	44	7	9	28	7	9s	02
11	29	6	10	29	44	3	10	55	4	23	49	6	24	45	6	25	15	7	8	27	7	7	41
13	1	7	10	29	41	3	10	58	4	24	58	6	26	46	6	27	45	7	6	45	7	5	41
15	3	7	10	29	39	3	11	01	4	26	06	6	28	47	7	0	16	7	4	30	7	3	13

Longitudes of Planets

Date	*Tithi* & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			♄ श श	बृ ♃ बृ	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov15	3	7	10R29 39	3 11 01	4 26 06	6 28 47	7 0s16	7R4 30	7 3s13
17	5	7	10 29 36	3 11 04	4 27 14	7 0 48	7 2 47	7 1⊙53	7 0 32
19	7	7	10 29 34	3 11 05	4 28 21	7 2 49	7 5 18	6 29 12	6 27 58
21	9	7	10 29 33	3 11 05	4 29 28	7 4 50	7 7 48	6 26 50	6 25r52
23	11	7	10 29 32	3R11 05	5 0 35	7 6 51	7 9 59	6 25 03	6 24 26
25	13	7	10 29 31	3 11 04	5 1 41	7 8 52	7 12 50	6 24 01	6D23 47
27	14	7	10D29 31	3 11 02	5 2 47	7 10 54	7 15 21	6 23 44	6 23 52
29	16	7	10 29 32	3 11 00	5 3 53	7 12 55	7 17 51	6 24 10	6 24 37
Dec. 1	18	7	10 29 32	3 10 56	5 4 58	7 14 57	7 20 22	6 25 12	6 25 54
3	21	7	10 29 33	3 10 52	5 6 03	7 16 58	7 22 53	6 26 43	6 27 37
5	23	7	10 29 35	3 10 47	5 7 07	7 19 00	7 25 24	6 28 36	6 29 40
7	25	7	10 29 37	3 10 42	5 8 11	7 21 02	7 27r54	7 0 47	7 1 58
9	27	7	10 29 39	3 10 35	5 9 15	7 23 04	8 0 25	7 3 11	7 4 27
11	29	7	10 29 42	3 10 28	5 10 18	7 25 06	8 2 56	7 5 45	7 7 05
13	1	8	10 29 46	3 10 20	5 11 20	7 27 08	8 5 27	7 8 26	7 9 49
15	3	8	10 29 49	3 10 11	5 12 22	7 29 10	8 7 58	7 11 13	7 12 38
17	5	8	10 29 53	3 10 02	5 13 23	8 1 12	8 10 28	7 14 04	7 15 30
19	7	8	10 29 58	3 9 52	5 14 24	8 3 14	8 12 59	7 16 58	7 18 26
21	9	8	11 0 03	3 9 41	5 15 24	8 5 16	8 15 30	7 19 54	7 21 23
23	11	8	11 0 08	3 9 30	5 16 24	8 7 19	8 18 01	7 22 52	7 24 22
25	13	8	11 0 14	3 9 18	5 17 23	8 9 21	8 20 31	7 25 52	7 27 23
27	15	8	11 0 20	3 9 05	5 18 21	8 11 23	8 23 02	7 28 54	8 0 25
29	17	8	11 0 27	3 8 52	5 19 18	8 13 25	8 25 33	8 1s57	8 3 28
31	19	8	11 0 34	3 8 39	5 20 15	8 15 27	8 28 03	8 5 01	8 6 33
Jan. 2	21	8	11 0 41	3 8 25	5 21 11	8 17 30	9 0 34	8 8 06	8 9 39

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January	1	1 10 52	1 9 16	4R26 14	6 28 3	4R25 3	23 22 40
February	1	1 8 37	1 7 38	4 25 37	6 28 40	4 24 39	23 22 45
March	1	1 5 25	1 6 9	4 24 33	6R28 48	4 23 59	23 22 49
April	1	1 2 42	1 4 30	4 23 14	6 28 26	4 23 10	23 22 53
May	1	1 1 56	1 2 55	4 22 19	6 27 44	4 22 35	23 22 57
June	1	1 1 59	1 1 16	4D22 8	6 26 55	4D22 26	23 23 1
July	1	1 1 16	0 29 41	4 22 44	6 26 16	4 22 44	23 23 7
August	1	0 28 49	0 28 2	4 24 4	6D26 1	4 23 27	23 23 12
September	1	0 25 32	0 26 23	4 25 52	6 26 16	4 24 29	23 23 16
October	1	0 23 21	0 24 48	4 27 44	6 26 58	4 25 34	23 23 19
November	1	0 22 50	0 23 10	4 29 28	6 28 0	4 26 30	23 23 23
December	1	0 22 50	0 21 34	5 0 38	6 29 7	4 27 7	23 23 28
January	1	0 21 29	0 19 56	5 R 1 2	7 0 8	4R27 14	23 23 34

Combustion or Heliacal Setting of Planets

Saturn : From Feb. 25 to Apr. 2

Jupiter : From June. 22 to July 17.

Mars : From Feb. 26 to July 1.

Venus : From Jan. 23 to Jan. 27, Oct. 16 to Dec. 7.

Mercury : From Jan. 27 to Feb. 18, Mar. 15 to Mar. 29, May 13 to June 4, July 16 to Aug. 5, Aug. 31 to Sept. 29, Nov. 10 to Nov. 22, Dec. 29 to Feb. 1 ('67).

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Mar.	12,	7	54	11	12	22	Apr.	4,	10	0	10	29	21
	July	14,	25	43	3	18	2	Aug.	7,	29	4	3	6	57
	Nov.	6,	23	12	7	9	51	Nov.	26,	23	31	6	23	44
Venus	Jan.	5,	21	49	9	20	27	Feb.	15,	24	15	9	4	52
Mars	—		—		—			—		—		—		
Jupiter	—		—		—			Feb.	15,	12	35	1	27	52
	Nov.	21,	15	53	3	11	5	—		—		—		
Saturn	July	11,	18	40	11	6	18	Nov.	26,	20	52	10	29	31
Uranus	—		—		—			May	23,	22	36	4	22	6
	Dec.	30,	12	56	5	1	2	—		—		—		
Neptune	Feb.	22,	16	45	6	28	48	Aug.	1,	9	56	6	26	1
Pluto	—		—		—			May	27,	15	48	4	22	25
	Dec.	23,	21	49	4	27	15	—		—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
		—				Jan.	7	10	46	Māgha	Vadi
Jan.	21	21	16	Māgha	Sukla	Feb.	5	21	28	Phālguna	,,
Feb.	20	16	19	Phālguna	,,	Mar.	7	7	15	Caitra	,,
Mar.	22	10	16	Caitra	,,	Apr.	5	16	43	Vaiśākha	,,
Apr.	20	26	5	Vaiśākha	,,	May	4	26	31	Jyaiṣṭha	,,
May	20	15	12	Jyaiṣṭha	,,	June	3	13	10	Āṣāḍha	,,
June	18	25	39	Āṣāḍha	,,	July	2	25	6	Śrāvaṇa	,,
July	18	10	0	Śrāvaṇa (*Mala*)	,,	Aug.	1	14	35	Śrāvaṇa (*Adhika*)	,,
Aug.	16	17	18	Śrāvaṇa	,,	Aug.	31	5	44	Bhādra	,,
Sept.	14	24	43	Bhādra	,,	Sept.	29	22	17	Āśvina	,,
Oct.	14	9	22	Āśvina	,,	Oct.	29	15	30	Kārtika	,,
Nov.	12	19	56	Kārtika	,,	Nov.	28	8	10	Agrahā	,,
Dec.	12	8	43	Agrahā	,,	Dec.	27	23	13	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	29	48	Karkaṭa	on	July	16	14	38
Kumbha	on	Feb.	12	18	49	Siṃha	on	Aug.	16	22	59
Mīna	on	Mar.	14	15	45	Kanyā	on	Sept.	16	22	51
Meṣa	on	Apr.	13	24	19	Tulā	on	Oct.	17	10	47
Vṛṣa	on	May	14	21	13	Vṛścika	on	Nov.	16	10	34
Mithuna	on	June	14	27	48	Dhanus	on	Dec.	15	25	12

Saka era 1888-89, Saṁvat 2023-24 (Apr. 10, Nov. 3), B.S 1373-74 (Apr. 15).
Kollam era 1142-43 (Aug. 17), 41 Plavanga (Apr. 10, 14).

Nirayana Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.

Date	Beng. Date		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	16	9	4	12	14	4	26	30	5	10	42	5	24	48	6	8	46	6	22	37	7	6	21
8	23	9	7	19	55	8	3	21	8	16	35	8	29	36	9	12	23	9	24	56	10	7	15
15	1	10	10	19	21	11	1	17	11	13	6	11	24	55	0	6	47	0	18	48	1	1	4
22	8	10	1	13	40	1	26	40	2	10	5	2	23	57	3	8	12	3	22	45	4	7	28
29	15	10	4	22	13	5	6	53	5	21	22	6	5	35	6	19	33	7	3	16	7	16	43
Feb. 5	22	10	7	29	58	8	13	1	8	25	53	9	8	34	9	21	4	10	3	23	10	15	33
12	29	10	10	27	33	11	9	26	11	21	14	0	3	1	0	14	51	0	26	50	1	9	2
19	6	11	1	21	35	2	4	31	2	17	55	3	1	49	3	16	11	4	0	57	4	15	59
26	13	11	5	1	6	5	16	10	6	1	1	6	15	33	6	29	44	7	13	32	7	26	58
Mar. 5	20	11	8	10	5	8	22	56	9	5	32	9	17	57	10	0	11	10	12	18	10	24	17
12	27	11	11	6	10	11	17	59	11	29	47	0	11	34	0	23	26	1	5	26	1	17	39
19	5	12	2	0	8	2	13	0	2	26	17	3	10	3	3	24	18	4	9	0	4	21	2
26	12	12	5	9	15	5	24	31	6	9	37	6	24	27	7	8	54	7	22	55	8	6	30
Apr. 2	19	12	8	19	41	9	2	30	9	15	1	9	27	17	10	9	22	10	21	19	11	3	11
9	26	12	11	15	0	11	26	47	0	8	37	0	20	29	1	2	28	1	14	35	1	26	53
16	2	1	2	9	27	2	22	19	3	5	32	3	19	10	4	3	12	4	17	39	5	2	26
23	9	1	5	17	28	6	2	37	6	17	44	7	2	39	7	17	15	8	1	27	8	15	12
30	16	1	8	28	31	9	11	25	9	23	57	10	6	12	10	18	14	11	0	7	11	11	56
May 7	23	1	11	23	43	0	5	32	0	17	26	0	28	28	1	11	37	1	23	58	2	6	31
14	30	1	2	19	17	3	2	18	3	15	36	3	29	11	4	13	5	4	27	17	5	11	45
21	6	2	5	26	26	6	11	15	6	26	5	7	10	50	7	25	21	8	9	33	8	23	22
28	13	2	9	6	45	9	19	44	10	2	19	10	14	36	10	26	39	11	8	31	11	20	19
June 4	20	2	0	2	8	0	14	0	0	26	1	1	8	12	1	20	37	2	8	15	2	16	8
11	27	2	2	29	14	3	12	34	3	26	6	4	9	49	4	23	44	5	7	48	5	22	01
18	3	3	6	6	21	6	20	46	7	5	12	7	19	34	8	3	48	8	17	48	9	1	28
25	10	3	9	14	47	9	27	44	10	10	20	10	22	37	11	4	40	11	16	34	11	23	22
July 2	17	3	0	10	12	0	22	8	1	4	14	1	16	35	1	29	12	2	12	8	2	25	22
9	24	3	3	8	53	3	22	37	4	6	32	4	20	33	5	4	39	5	18	46	6	2	04
16	31	3	6	17	1	7	1	7	7	15	9	7	29	6	8	12	55	8	26	33	9	9	56
23	6	4	9	23	2	10	5	50	10	18	20	11	0	34	11	12	35	11	24	28	0	6	16
30	13	4	0	18	6	1	0	3	1	12	12	1	24	37	2	7	24	2	20	32	3	4	4
Aug. 6	20	4	3	17	56	4	2	5	4	16	25	5	0	50	5	15	16	5	29	37	6	13	51
13	27	4	6	27	57	7	11	53	7	25	39	8	9	15	8	22	40	9	5	54	9	18	55
20	3	5	10	1	42	10	14	16	10	26	35	11	8	43	11	20	40	0	2	30	0	14	17
27	10	5	0	26	6	1	8	2	1	20	10	2	2	36	2	15	24	2	28	37	3	12	16
Sept.3	17	5	3	26	20	4	10	46	4	25	27	5	10	17	5	25	6	6	9	49	6	24	19
10	24	5	7	8	34	7	22	31	8	6	12	8	19	36	9	2	44	9	15	38	9	28	19
17	31	5	10	10	48	10	23	5	11	5	12	11	17	11	11	29	3	0	10	51	0	22	37
24	7	6	1	4	27	1	16	23	1	28	30	2	10	53	2	23	38	3	6	46	3	20	22
Oct. 1	14	6	4	4	26	4	18	55	5	3	45	5	18	48	6	3	56	6	18	59	7	3	50
8	21	6	7	18	21	8	2	30	8	16	16	8	29	38	9	12	40	9	25	22	10	7	49
15	28	6	10	20	3	11	2	7	11	14	4	11	25	55	0	7	44	0	19	32	1	1	21
22	4	7	1	13	13	1	25	13	2	7	23	2	19	47	3	2	28	3	15	31	3	28	57
29	11	7	4	12	49	4	27	8	5	11	50	5	26	50	6	12	2	6	27	14	7	12	19
Nov. 5	18	7	7	27	6	8	11	30	8	25	27	9	8	57	9	22	0	10	4	40	10	17	1
12	25	7	10	29	8	11	11	4	11	22	54	0	4	42	0	16	29	0	28	20	1	10	15
19	2	8	1	22	17	2	4	27	2	16	46	2	29	18	3	12	3	3	25	5	4	8	25
26	9	8	4	22	5	5	6	7	5	20	31	6	5	13	6	20	10	7	5	14	7	20	16
Dec. 3	16	8	8	5	7	8	19	39	9	3	45	9	17	23	10	0	32	10	13	16	10	25	38
10	23	8	11	7	44	11	19	38	0	1	26	0	13	12	0	25	1	1	6	57	1	19	0
17	1	9	2	1	15	2	13	40	2	26	17	3	9	5	3	22	6	4	5	17	4	18	42
24	8	9	5	2	19	5	16	11	6	0	17	6	14	38	6	29	10	7	13	51	7	28	33
31	15	9	8	13	9	8	27	32	9	11	35	9	25	14	10	8	27	10	21	14	11	8	40
Jan. 7	22	9	11	15	47	11	27	43	0	9	31	0	21	18	1	3	10	1	15	9	1	27	21

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 23′ 34″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	20	8	11 0 37	3R 8 32	5 20 43	8 16 29	8 29 19	8 6s33	8 8 06
3	22	8	11 0 45	3 8 18	5 21 39	8 18 31	9 1 49	8 9 39	8 11 13
5	25	8	11 0 52	3 8 03	5 22 34	8 20 33	9 4 20	8 12 46	8 14 21
7	27	8	11 1 00	3 7 48	5 23 28	8 22 36	9 6 50	8 15 55	8 17 30
9	29	8	11 1 09	3 7 33	5 24 21	8 24 38	9 9 21	8 19 06	8 20 41
11	1	9	11 1 18	3 7 17	5 25 14	8 26 40	9 11 51	8 22 18	8 23 54
13	3	9	11 1 27	3 7 02	5 26 05	8 28 42	9 14 22	8 25 31	8 27 09
15	5	9	11 1 36	3 6 46	5 26 55	9 0 45	9 16 52	8 28 47	9 0 26
17	6	9	11 1 46	3 6 30	5 27 45	9 2 47	9 19 22	9 2 05	9 3☉45
19	8	9	11 1 56	3 6 14	5 28 33	9 4 49	9 21 52	9 5 25	9 7 05
21	10	9	11 2 07	3 5☉57	5 29 20	9 6 51	9 24 23	9 8 47	9 10 28
23	12	9	11 2 17	3 5 41	6 0 06	9 8 53	9 26 53	9 12 11	9 13 54
25	14	9	11 2 28	3 5 25	6 0 51	9 10 55	9 29 23	9 15 37	9 17 21
27	16	9	11 2 40	3 5 09	6 1 34	9 12 57	10 1 53	9 19 05	9 20 50
29	19	9	11 2 51	3 4 54	6 2 16	9 14 59	10 4 22	9 22 35	9 24 20
31	21	9	11 3 02	3 4 38	6 2 57	9 17 01	10 6 52	9 26 05	9 27r51
Feb. 2	23	9	11 3 15	3 4 23	6 3 36	9 19 03	10 9 22	9 29 36	10 1 22
4	25	9	11 3 27	3 4 08	6 4 14	9 21 05	10 11 52	10 3 06	10 4 50
6	27	9	11 3 39	3 3 53	6 4 50	9 23 06	10 14 21	10 6 34	10 8 16
8	29	9	11 3 52	3 3 39	6 5 25	9 25 08	10 16 50	10 9 56	10 11 34
10	1	10	11 4 05	3 3 25	6 5 58	9 27 09	10 19 20	10 13 10	10 14 42
12	3	10	11 4 18	3 3 12	6 6 29	9 29 11	10 21 49	10 16 11	10 17 36
14	5	10	11 4 31	3 2 59	6 6 58	10 1 12	10 24 18	10 18 56	10 20 11
16	6	10	11 4 45	3 2 47	6 7 25	10 3 13	10 26 47	10 21 19	10 22 20
18	8	10	11 4 58	3 2 35	6 7 50	10 5 15	10 29 16	10 23 13	10 23 58
20	10	10	11 5 12	3 2 24	6 8 12	10 7 16	11 1 44	10 24 34	10 25 01
22	12	10	11 5 26	3 2 13	6 8 33	10 9 17	11 4 13	10 25 18	10R25 25
24	15	10	11 5 40	3 2 04	6 8 51	10 11 17	11 6 41	10 25 21	10 25 08
26	17	10	11 5 54	3 1 54	6 9 07	10 13 18	11 9 09	10 24s46	10 24 14
28	19	10	11 6 08	3 1 46	6 9 21	10 15 18	11 11 37	10 23 35	10 22 48
Mar. 2	22	10	11 6 23	3 1 38	6 9 32	10 17 19	11 14 05	10 21 55	10 20 58
4	24	10	11 6 37	3 1 31	6 9 40	10 19 19	11 16 32	10 19☉58	10 18 56
6	26	10	11 6 52	3 1 25	6 9 45	10 21 19	11 19 00	10 17 54	10 16 53
8	28	10	11 7 06	3 1 19	6R 9 48	10 23 20	11 21 27	10 15 55	10 15 01
10	29	10	11 7s21	3 1 14	6 9 47	10 25 20	11 23 54	10 14 11	10 13r27
12	1	11	11 7 36	3 1 10	6 9 44	10 27 20	11 26 21	10 12 48	10 12 15
14	3	11	11 7 51	3 1 07	6 9 38	10 29 19	11 28 47	10 11 49	10 11 30
16	5	11	11 8 05	3 1 05	6 9 28	11 1 19	0 1 14	10 11 17	10D11 10
18	7	11	11 8 20	3 1 03	6 9 15	11 3 18	0 3 40	10 11 09	10 11 15
20	9	11	11 8 35	3 1 02	6 9 00	11 5 18	0 6 06	10 11 26	10 11 42
22	11	11	11 8 50	3D 1 02	6 8 41	11 7 17	0 8 32	10 12 03	10 12 30
24	13	11	11 9☉05	3 1 02	6 8 19	11 9 16	0 10 57	10 13 01	10 13 36
26	15	11	11 9 20	3 1 04	6 7 55	11 11 15	0 13 22	10 14 15	10 14 58
28	18	11	11 9 35	3 1 06	6 7 27	11 13 14	0 15 47	10 15 45	10 16 35
30	20	11	11 9 50	3 1 09	6 6 57	11 15 12	0 18 12	10 17 28	10 18 24
Apr. 1	22	11	11 10 05	3 1 12	6 6 24	11 17 11	0 20 36	10 19 24	10 20 26
3	24	11	11 10 20	3 1 17	6 5 48	11 19 09	0 23 00	10 21 30	10 22 37
5	26	11	11 10 35	3 1 22	6 5 10	11 21 07	0 25 24	10 23 46	10 24 58
7	28	11	11 10 49	3 1 28	6 4 30	11 23 05	0 27 47	10 26 11	10 27 27
9	30	11	11 11 04	3 1 34	6 3 48	11 25 03	1 0 10	10 28 45	11 0 05
11	1	12	11 11 19	3 1 42	6 3 05	11 27 01	1 2 33	11 1 26	11 2 50
13	3	12	11 11 33	3 1 50	6 2 21	11 28 59	1 4 56	11 4 15	11 5 42
15	5	12	11 11r48	3 1 58	6 1☉36	0 0 57	1 7 18	11 7 11	11 8 42
17	7	12	11 12 02	3 2 07	6 0 50	0 2 54	1 9 40	11 10 14	11 11 48

1967 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 23′ 34″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.17	7 12	11 12 02	3 2 07	6R0 50	0 2 54	1 9 40	11 10 14	11 11 48
19	9 12	11 12 16	3 2 17	6 0 04	0 4 51	1 12 01	11 13 23	11 15 00
21	11 12	11 12 30	3 2 28	5 29 19	0 6 49	1 14 22	11 16 39	11 18 20
23	14 12	11 12 45	3 2 39	5 28 34	0 8 46	1 16 43	11 20 02	11 21 46
25	16 12	11 12 58	3 2 51	5 27 51	0 10 42	1 19 03	11 23s32	11 25 19
27	18 12	11 13 12	3 3 03	5 27 08	0 12 39	1 21 22	11 27 08	11 28 59
29	21 12	11 13 26	3 3 16	5 26 27	0 14 36	1 23 42	0 0 51	0 2 45
May 1	23 12	11 13 39	3 3 30	5 25 48	0 16 32	1 26 00	0 4 41	0 6 39
3	24 12	11 13 53	3 3 44	5 25 11	0 18 29	1 28 19	0 8 38	0 10 39
5	26 12	11 14 06	3 3 59	5 24 37	0 20 25	2 0 37	0 12 41	0 14 45
7	28 12	11 14 19	3 4 14	5 24 05	0 22 22	2 2 54	0 16 51	0 18 58
9	30 12	11 14 31	3 4 30	5 23 36	0 24 18	2 5 11	0 21 05	0 23 14
11	2 1	11 14 44	3 4 46	5 23 10	0 26 14	2 7 27	0 25◎24	0 27 34
13	4 1	11 14 56	3 5 03	5 22 47	0 28 10	2 9 43	0 29 45	1 1 56
15	6 1	11 15 03	3 5 20	5 22 27	1 0 05	2 11 58	1 4 07	1 6 17
17	8 1	11 15 20	3 5 37	5 22 10	1 2 01	2 14 12	1 8 27	1 10 36
19	10 1	11 15 32	3 5 55	5 21 57	1 3 57	2 16 26	1 12 43	1 14r49
21	12 1	11 15 44	3 6 14	5 21 47	1 5 52	2 18 39	1 16 53	1 18 56
23	15 1	11 15 55	3 6 33	5 21 39	1 7 47	2 20 51	1 20 56	1 22 53
25	17 1	11 16 06	3 6 52	5 21 36	1 9 43	2 23 02	1 24 49	1 26 41
27	19 1	11 16 16	3 7 12	5D21 35	1 11 38	2 25 13	1 28 31	2 0 19
29	21 1	11 16 27	3 7 32	5 21 38	1 13 33	2 27 23	2 2 03	2 3 45
31	23 1	11 16 37	3 7 52	5 21 43	1 15 28	2 29 32	2 5 24	2 7 00
June 2	25 1	11 16 47	3 8 13	5 21 52	1 17 23	3 1 39	2 8 32	2 10 02
4	27 1	11 16 56	3 8 34	5 22 03	1 19 18	3 3 46	2 11 29	2 12 53
6	28 1	11 17 06	3 8 56	5 22 17	1 21 13	3 5 52	2 14 14	2 15 31
8	30 1	11 17 15	3 9 17	5 22 34	1 23 08	3 7 57	2 16 46	2 17 57
10	2 2	11 17 23	3 9 39	5 22 54	1 25 03	3 10 01	2 19 05	2 20 09
12	4 2	11 17 32	3 10 02	5 23 16	1 26 58	3 12 03	2 21 10	2 22 08
14	6 2	11 17 40	3 10 24	5 23 40	1 28 52	3 14 04	2 23 02	2 23 52
16	9 2	11 17 48	3 10 47	5 24 07	2 0 47	3 16 04	2 24 39	2 25 21
18	11 2	11 17 55	3 11 11	5 24 37	2 2 41	3 18 02	2 26 00	2 26 35
20	13 2	11 18 02	3 11 34	5 25 08	2 4 36	3 19 58	2 27 05	2 27 31
22	15 2	11 18 09	3 11 58	5 25 42	2 6 30	3 21 53	2 27 53	2 28 10
24	17 2	11 18 15	3 12 22	5 26 18	2 8 25	3 23 46	2 28 23	2 28 31
26	19 2	11 18 21	3 12 46	5 26 55	2 10 19	3 25 37	2R28 35	2 28 34
28	21 2	11 18 26	3 13 10	5 27 35	2 12 14	3 27 25	2 28 28	2 28s18
30	23 2	11 18 32	3 13 34	5 28 16	2 14 08	3 29 12	2 28 04	2 27 46
July 2	25 2	11 18 36	3 13 59	5 28 59	2 16 02	4 0 56	2 27 23	2 26 57
4	27 2	11 18 41	3 14 24	5 29 44	2 17 57	4 2 38	2 26 28	2 25 56
6	29 2	11 18 45	3 14 49	6 0 31	2 19 51	4 4 17	2 25 22	2 24 46
8	1 3	11 18 48	3 15 14	6 1 19	2 21 46	4 5 53	2 24 09	2 23◎31
10	3 3	11 18 52	3 15 40	6 2 08	2 23 40	4 7 25	2 22 53	2 22 16
12	5 3	11 18 55	3 16 05	6 2 59	2 25 35	4 8 55	2 21 40	2 21 07
14	7 3	11 18 57	3 16 30	6 3 52	2 27 29	4 10 20	2 20 36	2 20 03
16	9 3	11 18 59	3 16 56	6 4 46	2 29 24	4 11 42	2 19 44	2 19 23
18	12 3	11 19 01	3 17 22	6 5 41	3 1 18	4 12 59	2 19r08	2 18 57
20	14 3	11 19 02	3 17 48	6 6 37	3 3 13	4 14 12	2D18 52	2 18 52
22	16 3	11 19 03	3 18 14	6 7 35	3 5 07	4 15 20	2 18 58	2 19 09
24	18 3	11R19 04	3 18s40	6 8 33	3 7 02	4 16 22	2 19 26	2 19 49
26	20 3	11 19 04	3 19 06	6 9 33	3 8 56	4 17 18	2 20 18	2 20 53
28	22 3	11 19 03	3 19 32	6 10 34	3 10 51	4 18 08	2 21 33	2 22 20
30	23 3	11 19 02	3 19 59	6 11 36	3 12 45	4 18 51	2 23 12	2 24 10
Aug. 1	25 3	11 19 01	3 20 25	6 12 39	3 14 40	4 19 27	2 25 14	2 26 23

EPHEMERIS Longitudes of Planets 1967 A.D.

Ayanamsa on 1st Jan. : 23° 23′ 34″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	बृ ♃ ह	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	25	3	11 R19 01	3 20s25	6 12 39	3 14 40	4 19 27	2 25 14	2 26 23
3	27	3	11 19 00	3 20 51	6 13 43	3 16 35	4 19 55	2 27 37	2 28 56
5	29	3	11 18 58	3 21 18	6 14 48	3 18 30	4 20 16	3 0 21	3 1 50
7	1	4	11 18 55	3 21◎44	6 15 54	3 20 25	4R20 27	3 3 24	3 5 02
9	4	4	11 18 52	3 22 10	6 17 01	3 22 20	4 20 30	3 6 44	3 8 29
11	6	4	11 18 49	3 22 37	6 18 08	3 24 15	4 20 24	3 10 18	3 12 10
13	8	4	11 18 46	3 23 03	6 19 17	3 26 10	4 20 08	3 14 04	3 16 00
15	10	4	11 18 42	3 23 30	6 20 26	3 28 06	4 19 42	3 17s59	3 19 58
17	12	4	11 18 37	3 23 56	6 21 36	4 0 01	4 19 07	3 21 58	3 23 59
19	14	4	11 18 33	3 24 22	6 22 47	4 1 56	4 18s23	3 26 01	3 28 02
21	16	4	11 18 28	3 24r48	6 23 59	4 3 52	4 17 30	4 0 04	4 2 05
23	18	4	11 18 22	3 25 14	6 25 11	4 5 47	4 16 30	4 4 05	4 6◎05
25	20	4	11 18 16	3 25 41	6 26 24	4 7 43	4 15 24	4 8 03	4 10 01
27	22	4	11 18 10	3 26 07	6 27 38	4 9 39	4 14 14	4 11 58	4 13 53
29	24	4	11 18 04	3 26 32	6 28 53	4 11 34	4 13◎00	4 15 48	4 17 41
31	26	4	11 17 57	3 26 58	7 0 08	4 13 30	4 11 46	4 19 33	4 21 24
Sept. 2	28	4	11 17 50	3 27 24	7 1 24	4 15 27	4 10r33	4 23 13	4 25 01
4	30	4	11 17 43	3 27 50	7 2 40	4 17 23	4 9 22	4 26 48	4 28 34
6	2	5	11 17 35	3 28 15	7 3 57	4 19 9	4 8 16	5 0 19	5 2 02
8	5	5	11 17 28	3 28 40	7 5 15	4 21 16	4 7 16	5 3 44	5 5 25
10	7	5	11 17 20	3 29 06	7 6 33	4 23 12	4 6 23	5 7r05	5 8 44
12	9	5	11 17 11	3 29 31	7 7 52	4 25 09	4 5 39	5 10 22	5 11 58
14	11	5	11 17 03	3 29 56	7 9 11	4 27 06	4 5 03	5 13 33	5 15 08
16	13	5	11 16 54	4 0 20	7 10 31	4 29 03	4 4 37	5 16 41	5 18 13
18	15	5	12 16 46	4 0 45	7 11 51	5 1 0	4 4 21	5 19 44	5 21 14
20	17	5	11 16 37	4 1 09	7 13 12	5 2 57	4D4 14	5 22 43	5 24 11
22	18	5	11 16 28	4 1 33	7 14 34	5 4 54	4 4 17	5 25 38	5 27 03
24	20	5	11 16 18	4 1 57	7 15 56	5 6 51	4 4 29	5 28 28	5 29 51
26	22	5	11 16 09	4 2 21	7 17 18	5 8 49	4 4 50	6 1 13	6 2 35
28	24	5	11 16 00	4 2 44	7 18 41	5 10 47	4 5 19	6 3 54	6 5 13
30	26	5	11 15 50	4 3 07	7 20 04	5 12 44	4 5 57	6 6 30	6 7 46
Oct. 2	28	5	11 15◎41	4 3 30	7 21 28	5 14 42	4 6 42	6 9 00	6 10 13
4	1	6	11 15 32	4 3 52	7 22 52	5 16 41	4 7 33	6 11 24	6 12 33
6	3	6	11 15 22	4 4 15	7 24 17	5 18 39	4 8 32	6 13 40	6 14 46
8	5	6	11 15 13	4 4 37	7 25 42	5 20 37	4 9 36	6 15 49	6 16 49
10	7	6	11 15 03	4 4 58	7 27 07	5 22 36	4 10 46	6 17 47	6 18 42
12	10	6	11 14 54	4 5 20	7 28 33	5 24 34	4 12 01	6 19 34	6 20 22
14	11	6	11 14 45	4 5 41	7 29 59	5 26 33	4 13 21	6 21 07	6 21 47
16	13	6	11 14 36	4 6 01	8 1 26	5 28 32	4 14 45	6 22 23	6 22 54
18	15	6	11 14 27	4 6 21	8 2 53	6 0 31	4 16 14	6 23 19	6 23 38
20	17	6	11 14 18	4 6 41	8 4 20	6 2 30	4 17 46	6 23 51	6R23 56
22	19	6	11 14 10	4 7 01	8 5 48	6 4 29	4 19 22	6 23 54	6 23 43
24	21	6	11 14 01	4 7 20	8 7 16	6 6 29	4 21 02	6 23s24	6 22 56
26	22	6	11 13 53	4 7 38	8 8 44	6 8 28	4 22 44	6 22 19	6 21 33
28	25	6	11 13 45	4 7 56	8 10 12	6 10 28	4 24 30	6 20 39	6 19 37
30	27	6	11 13 37	4 8 14	8 11 41	6 12 28	4 26 18	6 18 28	6 17 14
Nov. 1	29	6	11 13 30	4 8 31	8 13 10	6 14 28	4 28 09	6 15 57	6 14◎39
3	1	7	11 13 23	4 8 48	8 14 40	6 16 28	5 0 02	6 13 23	6 12 11
5	4	7	11 13 16	4 9 04	8 16 10	6 18 28	5 1 58	6 11 05	6 10r08
7	6	7	11 13 09	4 9 20	8 17 40	6 20 29	5 3 55	6 9 20	6 8 44
9	8	7	11 13 03	4 9 35	8 19 10	6 22 29	5 5 54	6 8 18	6D8 05
11	10	7	11 12 57	4 9 50	8 20 40	6 24 30	5 7 55	6 8 03	6 8 12
13	12	7	11 12 51	4 10 04	8 22 11	6 26 31	5 9 58	6 8 31	6 9 00
15	14	7	11 12 46	4 10 17	8 23 43	6 28 31	5 12 02	6 9 38	6 10 23

1967 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	Nirayana Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	बृ ♃ ह	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	14 7	11 R12 46	4 10 17	8 23 43	6 28 31	5 12 02	6 9 38	6 10 23
17	15 7	11 12 41	4 10 30	8 25 13	7 0 32	5 14 08	6 11 15	6 12 13
19	17 7	11 12 37	4 10 42	8 26 45	7 2 33	5 16 15	6 13 17	6 14 25
21	19 7	11 12 33	4 10 54	8 28 16	7 4 34	5 18 24	6 15 37	6 16 52
23	21 7	11 12 29	4 11 05	8 29 48	7 6 35	5 20 33	6 18 10	6 19 31
25	23 7	11 12 26	4 11 15	9 1 20	7 8 37	5 22 44	6 20 54	6 22 18
27	25 7	11 12 23	4 11 25	9 2 52	7 10 38	5 24 56	6 23 44	6 25 12
29	27 7	11 12 20	4 11 34	9 4 24	7 12 40	5 27 09	6 26 40	6 28 09
Dec. 1	30 7	11 12 18	4 11 42	9 5 57	7 14 41	5 29 23	6 29 39	7 1 09
3	2 8	11 12 17	4 11 50	9 7 29	7 16 43	6 1 38	7 2 40	7 4 12
5	4 8	11 12 15	4 11 57	9 9 02	7 18 45	6 3 54	7 5 43	7 7 15
7	6 8	11 12 15	4 12 03	9 10 35	7 20 47	6 6 10	7 8 47	7 10 20
9	8 8	11 D12 14	4 12 09	9 12 08	7 22 48	6 8 28	7 11 52	7 13s25
11	10 8	11 12 14	4 12 13	9 13 41	7 24 50	6 10 46	7 14 57	7 16 30
13	12 8	11 12 15	4 12 17	9 15 14	7 26 52	6 13 04	7 18 03	7 19 36
15	14 8	11 12 16	4 12 21	9 16 47	7 28 54	6 15 23	7 21 10	7 22 43
17	16 8	11 12 17	4 12 23	9 18 20	8 0 56	6 17 43	7 24 16	7 25 50
19	17 8	11 12 19	4 12 25	9 19 54	8 2 59	6 20 04	7 27 23	7 28 57
21	19 8	11 12 22	4 R12 26	9 21 27	8 5 01	6 22 25	8 0 31	8 2 05
23	21 8	11 12 24	4 12 26	9 23 01	8 7 03	6 24 46	8 3 40	8 5 14
25	24 8	11 12 28	4 12 25	9 24 34	8 9 05	6 27 08	8 6 49	8 8 24
27	26 8	11 12 31	4 12 24	9 26 08	8 11 07	6 29 30	8 9 59	8 11⊙35
29	28 8	11 12 35	4 12 22	9 27 41	8 13 10	7 1 53	8 13 11	8 14 47
31	30 8	11 12 40	4 12 19	9 29 15	8 15 12	7 4 16	8 16 23	8 18 00
Jan. 2	3 9	11 12 44	4 12 15	10 0 49	8 17 14	7 6 40	8 19 37	8 21 14

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	0 21 29	0 19 56	5 R 1 2	7 0 8	4 R27 14	23 23 54
February 1	0 18 14	0 18 17	5 0 33	7 0 47	4 26 50	23 23 40
March 1	0 15 14	0 16 48	4 29 33	7 R 0 58	4 26 12	23 23 43
April 1	0 13 40	0 15 10	4 28 13	7 0 38	4 25 22	23 23 47
May 1	0 13 36	0 13 34	4 27 13	6 29 58	4 24 47	23 23 51
June 1	0 13 19	0 11 56	4 D26 53	6 29 7	4 D24 34	23 23 56
July 1	0 11 34	0 10 20	4 27 22	6 28 28	4 24 51	23 24 1
August 1	0 8 25	0 8 42	4 28 35	6 D28 11	4 25 33	23 24 6
September 1	0 5 36	0 7 4	5 0 19	6 28 24	4 26 34	23 24 11
October 1	0 4 31	0 5 28	5 2 12	6 29 3	4 27 39	23 24 15
November 1	0 4 32	0 3 50	5 4 0	7 0 5	4 28 39	23 24 18
December 1	0 3 58	0 2 14	5 5 16	7 1 11	4 29 16	23 24 23
January 1	0 1 25	0 0 35	5 5 48	7 2 14	4 R29 27	23 24 29

Combustion or Heliacal Setting of Planets

Saturn : From Mar. 10 to Apr. 15.
Jupiter : From July 25 to Aug. 20.
Mars : — —
Venus : From Aug. 19 to Sept. 2.
Mercury : Upto Feb. 1, then from Feb. 26 to Mar. 11, Apr. 25 to May 20, June 29 to July 18, Aug. 15 to Sept. 10, Oct. 24 to Nov. 6, Dec. 10 to Jan. 14 ('68).

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Feb. 23,	9	57	10	25	25	Mar. 17,	20	2	10	11	9
	June 26,	12	23	2	28	35	July 20,	17	29	2	18	59
	Oct. 21,	10	32	6	23	56	Nov. 10,	21	53	6	8	3
Venus	Aug. 8,	19	58	4	20	30	Sept. 20,	15	5	4	4	14
Mars	Mar. 8,	23	15	6	9	48	May 26,	15	3	5	21	35
Jupiter	—	—		—			Mar. 21,	14	48	3	1	2
	Dec. 22,	15	27	4	12	26	—	—		—		
Saturn	July 25,	9	37	11	19	4	Dec. 9,	16	1	11	12	14
Uranus	—	—		—			May 28,	26	56	4	26	53
Neptune	Feb. 24,	28	2	7	0	58	Aug 3,	21	11	6	28	11
Pluto	—	—		—			May 29,	24	58	4	24	34
	Dec. 26,	11	8	4	29	27	—	—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	10	23	36	Pauṣa	Sukla	Jan.	26	12	10	Māgha	Vadi
Feb.	9	16	14	Māgha	,,	Feb.	24	23	13	Phālguna	,,
Mar.	11	10	0	Phālguna	,,	Mar.	26	8	51	Caitra	,,
Apr.	9	27	50	Caitra	,,	Apr.	24	17	33	Vaiśākha	,,
May	9	20	25	Vaiśākha	,,	May	23	25	52	Jyaiṣṭha	,,
June	8	10	43	Jyaiṣṭha	,,	June	22	10	27	Āṣāḍha	,,
July	7	22	30	Āṣāḍha	,,	July	21	20	9	Śrāvaṇa	,,
Aug.	6	8	18	Śrāvaṇa	,,	Aug.	20	7	57	Bhādra	,,
Sept.	4	17	7	Bhādra	,,	Sept.	18	22	29	Āśvina	,,
Oct.	3	25	54	Āśvina	,,	Oct.	18	15	41	Kārtika	,,
Nov.	2	11	18	Kārtika	,,	Nov.	17	10	22	Agraha	,,
Dec.	1	21	40	Agrahā	,,	Dec.	16	28	51	Pauṣa	,,
Dec.	31	9	8	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	11	56	Karkaṭa	on	July	16	20	47
Kumbha	on	Feb.	12	24	55	Siṁha	on	Aug.	16	29	10
Mina	on	Mar.	14	21	50	Kanyā	on	Sept.	16	29	4
Meṣa	on	Apr.	14	6	22	Tulā	on	Oct.	17	16	58
Vṛṣa	on	May	14	27	17	Vṛścika	on	Nov.	16	16	43
Mithuna	on	June	15	9	54	Dhanus	on	Dec.	16	7	19

Saka era 1889-90, Saṁvat 2024-25 (Mar. 29, Oct. 22), B.S. 1374-75 (Apr. 14), Kollam era 1143-44 (Aug. 16), 42 Kilaka (Mar. 29 Apr. 13)

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec.31	15	9	8	13	9	8	27	32	9	11	35	9	25	14	10	8	27	10	21	14	11	3	40
Jan. 7	22	9	11	15	47	11	27	43	0	9	31	0	21	18	1	3	10	1	15	9	1	27	21
14	29	9	2	9	47	2	22	28	3	5	25	3	18	36	4	1	59	4	15	33	4	29	15
21	7	10	5	13	4	5	26	59	6	11	0	6	25	7	7	9	19	7	23	34	8	7	48
28	14	10	8	21	58	9	5	57	9	19	42	10	3	8	10	16	14	10	28	58	11	11	23
Feb. 4	21	10	11	23	32	0	5	29	0	17	18	0	29	7	1	10	59	1	23	0	2	5	16
11	28	10	2	17	48	3	0	40	3	13	53	3	27	24	4	11	11	4	25	12	5	9	20
18	5	11	5	23	33	6	7	47	6	21	59	7	6	7	7	20	11	8	4	9	8	18	1
25	12	11	9	1	43	9	15	14	9	28	33	10	11	37	10	24	26	11	6	59	11	19	17
Mar. 3	19	11	0	1	23	0	13	18	0	25	8	1	6	57	1	18	49	2	0	50	2	13	4
10	26	11	2	25	37	3	8	31	3	21	49	4	5	31	4	19	35	5	3	56	5	18	31
17	3	12	6	3	11	6	17	52	7	2	26	7	16	50	8	1	0	8	14	56	8	28	35
24	10	12	9	11	59	9	25	9	10	8	3	10	20	45	11	3	14	11	15	31	11	27	38
31	17	12	0	9	37	0	21	29	1	3	18	1	15	7	1	27	0	2	9	0	2	21	12
Apr. 7	24	12	3	3	42	3	16	32	3	29	46	4	13	27	4	27	38	5	12	4	5	26	53
14	1	1	6	11	54	6	26	58	7	11	57	7	26	42	8	11	8	8	25	12	9	8	52
21	8	1	9	22	10	10	5	7	10	17	47	11	0	11	11	12	24	11	24	28	0	6	24
28	15	1	0	18	16	1	0	6	1	11	55	1	23	46	2	5	41	2	17	43	2	29	56
May 5	22	1	3	12	23	3	25	9	4	8	16	4	21	48	5	5	47	5	20	13	6	5	2
12	29	1	6	20	8	7	5	23	7	20	37	8	5	39	8	20	21	9	4	37	9	18	26
19	5	2	10	1	46	10	14	41	10	27	14	11	9	31	11	21	34	0	3	30	0	15	20
26	12	2	0	27	8	1	8	57	1	20	48	2	2	44	2	14	46	2	26	55	3	9	13
June 2	19	2	3	21	44	4	4	30	4	17	34	5	0	59	5	14	48	5	29	1	6	13	38
9	26	2	6	28	35	7	13	44	7	28	57	8	14	3	8	28	52	9	13	16	9	27	11
16	2	3	10	10	37	10	23	35	11	6	9	11	18	24	0	0	26	0	12	18	0	24	6
23	9	3	1	5	55	1	17	46	1	29	42	2	11	46	2	23	58	3	6	19	3	18	50
30	16	3	4	1	32	4	14	27	4	27	35	5	11	0	5	24	43	6	8	45	6	23	7
July 7	23	3	7	7	46	7	22	38	8	7	35	8	22	29	9	7	9	9	21	30	10	5	25
14	30	3	10	18	53	11	1	53	11	14	30	11	26	47	0	8	49	0	20	43	1	2	32
21	5	4	1	14	23	1	26	18	2	8	21	2	20	34	3	2	58	3	15	35	3	28	23
28	12	4	4	11	24	4	24	35	5	7	58	5	21	32	6	5	19	6	19	18	7	3	30
Aug. 4	19	4	7	17	52	8	2	22	8	16	55	9	1	25	9	15	45	9	29	49	10	13	32
11	26	4	10	26	53	11	9	51	11	22	27	0	4	46	0	16	50	0	28	45	1	10	36
18	2	5	1	22	29	2	4	27	2	16	35	2	28	55	3	11	31	3	24	22	4	7	30
25	9	5	4	20	52	5	4	27	5	18	13	6	2	8	6	16	10	7	0	17	7	14	28
Sept. 1	16	5	7	28	40	8	12	52	8	27	1	9	11	4	9	24	56	10	8	35	10	21	58
8	23	5	11	5	4	11	17	52	0	0	22	0	12	38	0	24	42	1	6	38	1	18	50
15	30	5	2	0	22	2	12	21	2	24	30	3	6	53	3	19	34	4	2	35	4	15	56
22	5	6	4	29	37	5	13	36	5	27	49	6	12	12	6	26	39	7	11	5	7	25	27
29	12	6	8	9	41	8	23	45	9	7	38	9	21	17	10	4	43	10	17	56	11	0	55
Oct. 6	19	6	11	13	41	11	26	14	0	8	33	0	20	44	1	2	44	1	14	39	1	26	30
13	26	6	2	8	22	2	20	19	3	2	26	3	14	46	3	27	25	4	10	26	4	23	51
20	3	7	5	7	42	5	21	57	6	6	31	6	21	20	7	6	15	7	21	7	8	5	50
27	10	7	8	20	17	9	4	25	9	18	13	10	1	40	10	14	49	10	27	41	11	10	20
Nov. 3	17	7	11	22	46	0	5	3	0	17	11	0	29	13	1	11	9	1	23	2	2	4	53
10	24	7	2	16	45	2	28	41	3	10	45	3	23	1	4	5	34	4	18	28	5	1	47
17	1	8	5	15	34	5	29	50	6	14	32	6	29	34	7	14	48	8	0	3	8	15	9
24	8	8	8	29	55	9	14	17	9	28	11	10	11	39	10	24	42	11	7	24	11	19	50
Dec. 1	15	8	0	2	3	0	14	8	0	26	6	1	8	1	1	19	54	2	1	46	2	13	39
8	22	8	2	25	34	3	7	34	3	19	40	4	1	56	4	14	25	4	27	13	5	10	23
15	29	8	5	23	59	6	8	3	6	22	36	7	7	33	7	22	48	8	8	9	8	23	26
22	7	9	9	8	26	9	23	2	10	7	9	10	20	45	11	3	53	11	16	36	11	28	59
29	14	9	0	11	8	0	23	7	1	5	0	1	16	51	1	28	43	2	10	37	2	22	34
Jan. 5	21	9	3	4	36	3	16	45	3	29	0	4	11	24	4	24	0	5	6	49	5	19	57

Ayanamsa on 1st Jan. : 23° 24′ 29″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	1 9	11 12 42	4R 12 17	10 0 02	8 16 13	7 5 28	8 18s00	8 19 37
3	4 9	11 12 47	4 12 13	10 1 35	8 18 16	7 7 51	8 21 14	8 22 52
5	6 9	11 12 52	4 12 08	10 3 09	8 20 18	7 10 15	8 24 30	8 26 08
7	7 9	11 12 58	4 12 02	10 4 43	8 22 20	7 12 40	8 27 47	8 29 26
9	9 9	11 13 05	4 11 56	10 6 16	8 24 23	7 15 04	9 1 05	9 2 45
11	11 9	11 13 11	4 11 49	10 7 50	8 26 25	7 17 29	9 4 25	9 6 05
13	13 9	11 13 18	4 11 41	10 9 23	8 28 27	7 19 54	9 7 45	9 9r26
15	15 9	11 13 26	4 11 32	10 10 57	9 0 29	7 22 19	9 11 06	9 12 46
17	17 9	11 13 33	4 11 23	10 12 30	9 2 31	7 24 45	9 14 27	9 16 07
19	19 9	11 13 41	4 11 13	10 14 04	9 4 34	7 27 10	9 17 46	9 19 25
21	21 9	11 13 50	4 11 03	10 15 37	9 6 36	7 29 36	9 21 03	9 22 40
23	23 9	11 13 59	4 10 52	10 17 10	9 8 38	8 2 02	9 24 15	9 25 48
25	25 9	11 14 08	4 10 40	10 18 44	9 10 40	8 4 29	9 27 20	9 28 48
27	28 9	11 14 17	4 10 28	10 20 17	9 12 42	8 6 55	10 0 13	10 1 35
29	30 9	11 14 27	4 10 15	10 21 50	9 14 44	8 9 22	10 2 51	10 4 03
31	2 10	11 14 37	4 10 02	10 23 23	9 16 46	8 11 48	10 5 08	10 6 07
Feb. 2	4 10	11 14 48	4 9 48	10 24 56	9 18 48	8 14 15	10 6 58	10 7 40
4	6 10	11 14 58	4 9 34	10 26 29	9 20 49	8 16 42	10 8 14	10 8 37
6	8 10	11 15 09	4 9 19	10 28 01	9 22 51	8 19 09	10R 8 50	10 8 52
8	9 10	11 15 21	4 9 05	10 29 34	9 24 53	8 21 36	10 8 43	10 8 23
10	11 10	11 15 32	4 8 50	11 1 06	9 26 54	8 24 03	10 7s53	10 7 13
12	13 10	11 15 44	4 8 34	11 2 39	9 28 56	8 26 30	10 6 24	10 5 28
14	15 10	11 15 56	4 8 19	11 4 11	10 0 57	8 28 58	10 4 26	10 3☌20
16	17 10	11 16 08	4 8 03	11 5 43	10 2 58	9 1 25	10 2 11	10 1 02
18	20 10	11 16 21	4 7 47	11 7 15	10 4 59	9 3 53	9 29 54	9 28 49
20	22 10	11 16 33	4 7☍32	11 8 47	10 7 00	9 6 20	9 27r49	9 26 53
22	24 10	11 16 46	4 7 16	11 10 18	10 9 01	9 8 48	9 26 05	9 25 22
24	26 10	11 16 59	4 7 00	11 11 50	10 11 02	9 11 16	9 24 48	9 24 20
26	28 10	11 17 13	4 6 44	11 13 21	10 13 03	9 13 43	9 24 00	9 23 47
28	30 10	11 17 26	4 6 29	11 14 53	10 15 03	9 16 11	9D23 42	9 23 42
Mar. 1	2 11	11 17 40	4 6 13	11 16 24	10 17 04	9 18 39	9 23 50	9 24 03
3	4 11	11 17 54	4 5 58	11 17 55	10 19 04	9 21 07	9 24 22	9 24 46
5	6 11	11 18 08	4 5 43	11 19 25	10 21 05	9 23 34	9 25 16	9 25 50
7	8 11	11 18 22	4 5 29	11 20 56	10 23 05	9 26 02	9 26 28	9 27 10
9	9 11	11 18 36	4 5 14	11 22 26	10 25 05	9 28 30	9 27 56	9 28 45
11	11 11	11 18 50	4 5 00	11 23 56	10 27 05	10 0 58	9 29 38	10 0 34
13	14 11	11 19 05	4 4 47	11 25 26	10 29 04	10 3 26	10 1 33	10 2 34
15	16 11	11 19 19	4 4 34	11 26 56	11 1 04	10 5 54	10 3 37	10 4 44
17	18 11	11 19 34	4 4 21	11 28 26	11 3 03	10 8 21	10 5 52	10 7 03
19	20 11	11 19 49	4 4 09	11 29 55	11 5 03	10 10 49	10 8 15	10 9 30
21	22 11	11 20s03	4 3 58	0 1 25	11 7 02	10 13 17	10 10 47	10 12 05
23	25 11	11 20 18	4 3 47	0 2 54	11 9 01	10 15 45	10 13 25	10 14 47
25	27 11	11 20 33	4 3 37	0 4 23	11 11 00	10 18 13	10 16 10	10 17 35
27	29 11	11 20 48	4 3 27	0 5 51	11 12 59	10 20 41	10 19 01	10 20 29
29	1 12	11 21 03	4 3 18	0 7 20	11 14 57	10 23 09	10 21 59	10 23 30
31	2 12	11 21 18	4 3 10	0 8 48	11 16 56	10 25 37	10 25 03	10 26 37
Apr. 2	4 12	11 21 34	4 3 02	0 10 17	11 18 54	10 28 05	10 28 12	10 29 49
4	6 12	11 21☌49	4 2 55	0 11 45	11 20 53	11 0 33	11 1 27	11 3 07
6	8 12	11 22 04	4 2 49	0 13 12	11 22 51	11 3 00	11 4 48	11 6s31
8	10 12	11 22 19	4 2 43	0 14 40	11 24 49	11 5 28	11 8 15	11 10 01
10	12 12	11 22 34	4 2 38	0 16 07	11 26 47	11 7 56	11 11 48	11 13 36
12	14 12	11 22 49	4 2 34	0 17 35	11 28 44	11 10 24	11 15 26	11 17 18
14	16 12	11 23 04	4 2 31	0 19 01	0 0 42	11 12 51	11 19 11	11 21 06
16	19 12	11 23 19	4 2 28	0 20 28	0 2 39	11 15 19	11 23 02	11 25 00

Ayanamsa on 1st Jan. : 23° 24′ 29″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	*Tithi & Month*		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.16	19	12	11 23s19	4 R2 28	0 20 28	0 2 39	11 15 19	11 23s02	11 25 00
18	21	12	11 23 34	4 2 26	0 21 55	0 4 36	11 17 47	11 26 59	11 29 00
20	23	12	11 23 49	4 2 25	0 23 21	0 6 34	11 20 14	0 1 02	0 3 05
22	25	12	11 24 04	4D2 25	0 24 47	0 8 31	11 22 42	0 5 10	0 7 10
24	27	12	11 24 19	4 2 25	0 26 13	0 10 28	11 25 10	0 9⊙22	0 11 30
26	29	12	11 24 33	4 2 27	0 27 39	0 12 24	11 27 37	0 13 38	0 15 47
28	1	1	11 24r48	4 2 28	0 29s05	0 14 21	0 0 05	0 17 56	0 20 05
30	3	1	11 25 02	4 2 31	1 0 30	0 16 18	0 2 33	0 22 14	0 24 22
May 2	4	1	11 25 17	4 2 34	1 1 56	0 18 14	0 5 00	0 26 29	0 28r35
4	6	1	11 25 31	4 2 38	1 3 21	0 20 11	0 7 28	1 0 39	1 2 42
6	8	1	11 25 45	4 2 43	1 4 45	0 22 07	0 9 55	1 4 42	1 6 40
8	10	1	11 25 59	4 2 49	1 6 10	0 24 03	0 12 23	1 8 36	1 10 29
10	13	1	11 26 13	4 2 55	1 7 35	0 25 59	0 14 50	1 12 19	1 14 6
12	15	1	11 26 27	4 3 02	1 8 59	0 27 55	0 17 17	1 15 50	1 17 3
14	17	1	11 26 41	4 3 09	1 10 23	0 29 51	0 19 45	1 19 08	1 20 41
16	20	1	11 26 54	4 3 17	1 11 47	1 1 46	0 22 12	1 22 12	1 23 38
18	22	1	11 27 07	4 3 26	1 13 10	1 3 42	0 24s40	1 25 01	1 26 21
20	24	1	11 27 20	4 3 35	1 14 34	1 5 37	0 27 07	1 27 37	1 28 49
22	26	1	11 27 33	4 3 45	1 15 57	1 7 33	0 29 34	1 29 57	2 1 01
24	27	1	11 27 46	4 3 56	1 17 20	1 9 28	1 2 02	2 2 01	2 2 58
26	29	1	11 27 58	4 4 7	1 18 43	1 11 23	1 4 29	2 3 50	2 4 38
28	1	2	11 28 11	4 4 19	1 20 06	1 13 18	1 6 57	2 5 22	2 6 02
30	3	2	11 28 23	4 4 32	1 21 29	1 15 14	1 9 24	2 6 37	2 7 08
June 1	5	2	11 28 34	4 4 45	1 22 51	1 17 09	1 11 51	2 7 34	2 7 56
3	7	2	11 28 46	4 4 58	1 24 14	1 19 04	1 14 19	2 8 13	2 8 25
5	9	2	11 28 57	4 5 12	1 25 36	1 20 59	1 16 46	2 8 33	2 R8 37
7	11	2	11 29 08	4 5 27	1 26 58	1 22 53	1 19 13	2 8 35	2 8 30
9	13	2	11 29 19	4 5 42	1 28 19	1 24 48	1 21 41	2 8s20	2 8 05
11	16	2	11 29 30	4 5 57	1 29 41	1 26 43	1 24 08	2 7 47	2 7 28
13	18	2	11 29 40	4 6 13	2 1 02	1 28 37	1 26 35	2 7 01	2 6 33
15	20	2	11 29 50	4 6 30	2 2 24	2 0 32	1 29 03	2 6 03	2 5 31
17	22	2	0 0 00	4 6 47	2 3 45	2 2 26	2 1 30	2 4 58	2 4⊙24
19	24	2	0 0 09	4 7 04	2 5 06	2 4 21	2 3⊙57	2 3 50	2 3 16
21	26	2	0 0 18	4 7 22	2 6⊙27	2 6 15	2 6 25	2 2 43	2 2 11
23	28	2	0 0 27	4 7 40	2 7 47	2 8 10	2 8 52	2 1 42	2 1 15
25	30	2	0 0 35	4 7 59	2 9 08	2 10 04	2 11 20	2 0 51	2 0 31
27	1	3	0 0 43	4 8 18	2 10 28	2 11 59	2 13 47	2 0 14	2 0 02
29	3	3	0 0 51	4 8 38	2 11 48	2 13 53	2 16 15	1 29r54	1D29 50
July 1	5	3	0 0 59	4 8 57	2 13 08	2 15 48	2 18 42	1 29 51	1 29 57
3	7	3	0 1 06	4 9 18	2 14 28	2 17 42	2 21 10	2 0 08	2 0 24
5	10	3	0 1 13	4 9 38	2 15 48	2 19 37	2 23 37	2 0 45	2 1 11
7	12	3	0 1 19	4 9 59	2 17 08	2 21 31	2 26 05	2 1 42	2 2 18
9	14	3	0 1 25	4 10 20	2 18 27	2 23 25	2 28 32	2 2 59	2 3 45
11	16	3	0 1 31	4 10 42	2 19 46	2 25 20	3 1 00	2 4⊙35	2 5 31
13	19	3	0 1 36	4 11 03	2 21 06	2 27 14	3 3 27	2 6 31	2 7 30
15	21	3	0 1 41	4 11 25	2 22 25	2 29 09	3 5r55	2 8 45	2 9 59
17	23	3	0 1 45	4 11 48	2 23 43	3 1 03	3 8 23	2 11 18	2 12 41
19	24	3	0 1 49	4 12 10	2 25 02	3 2 57	3 10 50	2 14 08	2 15 39
21	26	3	0 1 53	4 12 33	2 26 21	3 4 52	3 13 18	2 17 15	2 18 54
23	28	3	0 1 56	4 12 56	2 27 40	3 6 47	3 15 46	2 20 37	2 22 23
25	30	3	0 1 59	4 13 20	2 28 58	3 8 41	3 18 13	2 24 13	2 26 06
27	2	4	0 2 02	4 13 43	3 0 16	3 10 36	3 20 41	2 28 01	2 29 59
29	4	4	0 2 04	4 14 07	3 1 35	3 12 31	3 23 09	3 1s59	3 4 00
31	6	4	0 2 05	4 14 31	3 2 53	3 14 25	3 25 37	3 6 03	3 8 07

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Ayanamsa on 1st Jan. : 23° 24′ 29″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
July 31	6	4	0 2 05	4 14 31	3 2s53	3 14 25	3 25 37	3 6 03	3 8s07
Aug. 2	8	4	0 2 07	4 14 55	3 4 11	3 16 20	3 28 04	3 10 12	3 12 17
4	10	4	0 2 08	4 15 19	3 5 28	3 18 15	4 0 32	3 14 22	3 16 27
6	13	4	0 R2 08	4 15 44	3 6 46	3 20 10	4 3 00	3 18 32	3 20☌36
8	15	4	0 2 08	4 16 09	3 8r04	3 22 05	4 5 28	3 22 39	3 24 42
10	17	4	0 2 08	4 16 33	3 9 21	3 24 00	4 7 55	3 26 43	3 28 43
12	19	4	0 2 07	4 16 58	3 10 39	3 25 55	4 10 23	4 0 42	4 2 40
14	21	4	0 2 06	4 17 23	3 11 56	3 27 50	4 12 51	4 4 36	4 6 31
16	23	4	0 2 04	4 17 49	3 13 13	3 29 46	4 15 19	4 8 24	4 10 16
18	25	4	0 2 02	4 18 14	3 14 30	4 1 41	4 17 46	4 12 07	4 13 56
20	27	4	0 1 59	4 18 39	3 15 47	4 3 37	4 20 14	4 15 44	4 17r30
22	28	4	0 1 57	4 19 05	3 17 04	4 5 32	4 22 42	4 19 15	4 20 59
24	1	5	0 1 53	4 19s31	3 18 21	4 7 28	4 25 10	4 22 41	4 24 22
26	3	5	0 1 50	4 19 56	3 19 37	4 9 24	4 27 37	4 26 01	4 27 39
28	5	5	0 1 46	4 20 22	3 20 54	4 11 20	5 0 05	4 29 16	5 0 52
30	7	5	0 1 41	4 20 48	3 22 10	4 13 16	5 2 33	5 2 26	5 3 59
Sept. 1	9	5	0 1 36	4 21 14	3 23 27	4 15 12	5 5 01	5 5 31	5 7 01
3	11	5	0 1 31	4 21 40	3 24 43	4 17 08	5 7 28	5 8 30	5 9 58
5	13	5	0 1 26	4 22 06	3 25 59	4 19 04	5 9 56	5 11 24	5 12 50
7	16	5	0 1 20	4 22 32	3 27 15	4 21 00	5 12 23	5 14 13	5 15 36
9	18	5	0 1 14	4 22☌58	3 28 31	4 22 57	5 14 51	5 16 57	5 18 16
11	19	5	0 1 07	4 23 24	3 29 47	4 24 54	5 17 18	5 19 34	5 20 51
13	21	5	0 1 00	4 23 50	4 1 03	4 26 50	5 19 46	5 22 06	5 23 19
15	23	5	0 0 53	4 24 16	4 2 19	4 28 47	5 22 13	5 24 30	5 25 40
17	25	5	0 0 46	4 24 42	4 3 34	5 0 44	5 24 41	5 26 47	5 27 53
19	27	5	0 0 38	4 25 08	4 4 50	5 2 41	5 27 08	5 28 56	5 29 57
21	29	5	0 0 30	4 25r33	4 6 06	5 4 39	5 29 35	6 0 56	6 1 52
23	1	6	0 0 22	4 25 59	4 7 21	5 6 36	6 2 03	6 2 44	6 3 32
25	3	6	0 0 14	4 26 25	4 8 36	5 8 34	6 4 30	6 4 21	6 5 03
27	6	6	0 0 05	4 26 51	4 9 51	5 10 32	6 6 57	6 5 42	6 6 16
29	8	6	11 29 56	4 27 16	4 11 07	5 12 29	6 9 24	6 6 46	6 7 10
Oct. 1	10	6	11 29 47	4 27 42	4 12 22	5 14 27	6 11 51	6 7 29	6 7 42
3	12	6	11 29 38	4 28 07	4 13 36	5 16 25	6 14 18	6 R7 49	6 7 49
5	14	6	11 29 29	4 28 32	4 14 51	5 18 24	6 16 45	6 7s42	6 7 27
7	16	6	11 29 20	4 28 57	4 16 06	5 20 22	6 19 12	6 7 04	6 6 33
9	18	6	11 29 10	4 29 22	4 17 21	5 22 20	6 21 39	6 5 54	6 5 07
11	20	6	11 29 01	4 29 47	4 18 35	5 24 19	6 24 06	6 4 13	6 3 13
13	22	6	11 28 51	5 0 12	4 19 50	5 26 18	6 26 32	6 2 06	6 0 56
15	23	6	11 28☌42	5 0 36	4 21 04	5 28 17	6 28 59	5 29☌43	5 28 30
17	25	6	11 28 32	5 1 01	4 22 18	6 0 16	7 1 26	5 27 19	5 26 11
19	27	6	11 28 23	5 1 25	4 23 33	6 2 15	7 3 52	5 25 09	5 24 15
21	29	6	11 28 13	5 1 49	4 24 47	6 4 14	7 6 19	5 23r30	5 22 56
23	2	7	11 28 04	5 2 12	4 26 01	6 6 14	7 8 45	5 22 32	5D22 19
25	4	7	11 27 54	5 2 36	4 27 15	6 8 13	7 11 11	5 22 18	5 22 28
27	6	7	11 27 45	5 2 59	4 28 28	6 10 13	7 13 38	5 22 49	5 23 19
29	9	7	11 27 36	5 3 22	4 29 42	6 12 13	7 16 04	5 23 58	5 24 46
31	11	7	11 27 27	5 3 45	5 0 56	6 14 13	7 18 30	5 25 41	5 26 42
Nov. 2	13	7	11 27 18	5 4 07	5 2 09	6 16 13	7 20 56	5 27 50	5 29 02
4	14	7	11 27 10	5 4 29	5 3 22	6 18 13	7 23 22	6 0 18	6 1 38
6	16	7	11 27 01	5 4 51	5 4 36	6 20 13	7 25 47	6 3 01	6 4 26
8	18	7	11 26 53	5 5 13	5 5 49	6 22 14	7 28 13	6 5 54	6 7 23
10	20	7	11 26 45	5 5 34	5 7 02	6 24 14	8 0 38	6 8 54	6 10 26
12	22	7	11 26 37	5 5 55	5 8 15	6 26 15	8 3 04	6 11 59	6 13 33
14	24	7	11 26 30	5 6 15	5 9 28	6 28 16	8 5 29	6 15 07	6 16 42

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. ♄ श श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	24 7	11 R26 30	5 6 15	5 9 28	6 28 16	8 5 29	6 15 07	6 16 42
16	26 7	11 26 22	5 6 35	5 10 40	7 0 17	8 7 54	6 18 17	6 19 52
18	28 7	11 26 16	5 6 55	5 11 53	7 2 18	8 10 19	6 21 27	6 23S03
20	30 7	11 26 09	5 7 14	5 13 05	7 4 19	8 12 44	6 24 38	6 26 13
22	2 8	11 26 03	5 7 33	5 14 17	7 6 20	8 15 08	6 27 49	6 29 24
24	5 8	11 25 57	5 7 52	5 15 30	7 8 21	8 17 33	7 0 59	7 2 34
26	7 8	11 25 51	5 8 10	5 16 41	7 10 23	8 19 57	7 4 09	7 5 44
28	9 8	11 25 46	5 8 27	5 17 53	7 12 24	8 22 21	7 7 19	7 8 54
30	11 8	11 25 41	5 8 44	5 19 05	7 14 26	8 24 44	7 10 28	7 12 03
Dec. 2	13 8	11 25 37	5 9 01	5 20 16	7 16 27	8 27 05	7 13 37	7 15 11
4	15 8	11 25 33	5 9 17	5 21 28	7 18 29	8 29 31	7 16 46	7 18 20
6	17 8	11 25 30	5 9 33	5 22 39	7 20 31	9 1 54	7 19 54	7 21◎28
8	19 8	11 25 26	5 9 48	5 23 50	7 22 33	9 4 16	7 23 02	7 24 37
10	21 8	11 25 24	5 10 02	5 25 01	7 24 35	9 6 39	7 26 11	7 27 45
12	23 8	11 25 21	5 10 16	5 26 11	7 26 37	9 9 00	7 29 20	8 0 54
14	25 8	11 25 19	5 10 30	5 27 22	7 28 39	9 11 22	8 2 29	8 4 04
16	27 8	11 25 18	5 10 42	5 28 32	8 0 41	9 13 43	8 5 38	8 7 13
18	29 8	11 25 17	5 10 55	5 29 42	8 2 43	9 16 04	8 8 49	8 10 24
20	1 9	11 25 16	5 11 06	6 0 52	8 4 45	9 18 24	8 11 59	8 13 35
22	3 9	11 D25 16	5 11 17	6 2 01	8 6 47	9 20 44	8 15 10	8 16 46
24	5 9	11 25 17	5 11 27	6 3 11	8 8 50	9 23 03	8 18 22	8 19 58
26	7 9	11 25 17	5 11 37	6 4 20	8 10 52	9 25 22	8 21r34	8 23 10
28	9 9	11 25 19	5 11 46	6 5 29	8 12 54	9 27 40	8 24 46	8 26 21
30	11 9	11 25 20	5 11 54	6 6 37	8 14 56	9 29 57	8 27 57	8 29 32
Jan. 1	13 9	11 25 22	5 12 02	6 7 46	8 16 59	10 2 14	9 1 07	9 2 41

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	0 1 25	0 0 35	5R 5 48	7 2 14	4 R29 27	23 24 29
February 1	11 27 50	11 28 57	5 5 28	7 2 55	4 29 5	23 24 35
March 1	11 25 38	11 27 24	5 4 29	7R 3 7	4 28 25	23 24 39
April 1	11 25 11	11 25 46	5 3 9	7 2 49	4 27 36	23 24 42
May 1	11 25 11	11 24 11	5 2 6	7 2 9	4 26 59	23 24 46
June 1	11 23 58	11 22 32	5D 1 40	7 1 19	4D26 45	23 24 51
July 1	11 21 13	11 20 57	5 2 2	7 0 40	4 27 0	23 24 57
August 1	11 18 5	11 19 18	5 3 10	7D 0 21	4 27 43	23 25 2
September 1	11 16 20	11 17 40	5 4 51	7 0 32	4 28 43	23 25 7
October 1	11 16 8	11 16 5	5 6 44	7 1 11	4 29 49	23 25 10
November 1	11 16 0	11 14 25	5 8 34	7 2 11	5 0 50	23 25 14
December 1	11 14 18	11 12 50	5 9 54	7 3 18	5 1 29	23 25 19
January 1	11 10 51	11 11 11	5 10 33	7 4 21	5R 1 40	23 25 25

Combustion or Heliacal Setting of Planets

Saturn	:	From Mar. 22 to Apr. 27.
Jupiter	:	From Aug. 25 to Sept. 20.
Mars	:	From Apr. 29 to Aug. 8.
Venus	:	From May 19 to July 14.
Mercury	:	Upto Jan. 14 then from Feb. 10 to Feb. 20, Apr. 7 to May 3, June 9 to June 29, July 29 to Aug. 21, Nov. 19 to Dec. 26.

Retrogression of Planets

PLANET	RETROGRADE Date			Long.			DIRECT Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Feb. 6,	22	9	10	8	52	Feb. 28,	14	13	9	23	42
	June 6,	10	50	2	8	37	June 30,	11	35	1	29	50
	Oct. 3,	17	6	6	7	49	Oct. 24,	19	51	5	22	18
Venus	—	—		—			—	—		—		
Mars	—	—		—			—	—		—		
Jupiter	—	—		—			Apr. 21,	28	51	4	2	25
Saturn	Aug. 7,	7	58	0	2	8	Dec. 21,	17	8	11	25	16
Uranus	Jan. 4,	12	16	5	5	49	June 2,	6	6	5	1	40
Neptune	Feb. 27,	14	47	7	3	7	Aug. 5,	7	39	7	0	21
Pluto	—	—		—			May 31,	10	10	4	26	45
	Dec. 27,	24	13	5	1	41	—	—		—		

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
		—				Jan.	15	21	41	Māgha	Vadi
Jan.	29	21	59	Māgha	Sukla	Feb.	14	12	13	Phālguna	,,
Feb.	28	12	26	Phālguna	,,	Mar.	14	24	22	Caitra	,,
Mar.	28	28	18	Caitra	,,	Apr.	13	10	22	Vaiśakha	,,
Apr.	27	20	51	Vaiśākha	,,	May	12	18	35	Jyaiṣṭha	,,
May	27	13	0	Jyaiṣṭha	,,	June	10	25	43	Āṣāḍha	,,
June	25	27	55	Āṣāḍha	,,	July	10	8	48	Śrāvaṇa	,,
July	25	17	19	Śrāvaṇa	,,	Aug.	8	17	2	Bhādra	,,
Aug.	23	29	27	Bhādra	,,	Sept.	6	27	37	Āśvina	,,
Sept.	22	16	38	Āśvina	,,	Oct.	6	17	16	Kārtika	,,
Oct.	21	27	14	Kārtika	,,	Nov.	5	9	55	Agrahā	,,
Nov.	20	13	32	Agrahā	,,	Dec.	4	28	37	Pauṣa	,,
Dec.	19	23	49	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	18	1	Karkaṭa	on	July	15	27	5
Kumbha	on	Feb.	13	6	59	Siṁha	on	Aug.	16	11	29
Mīna	on	Mar.	13	27	53	Kanyā	on	Sept.	16	11	22
Meṣa	on	Apr.	13	12	28	Tulā	on	Oct.	16	23	13
Vṛṣa	on	May	14	9	26	Vṛścika	on	Nov.	15	22	56
Mithuna	on	June	14	16	9	Dhanus	on	Dec.	15	13	30

Saka era 1890-91, Samvat 2025-26 (Mar. 19, Nov. 10), B. S 1375-76 (Apr. 14).
Kollam era 1144-45 (Aug. 17), 43 Saumya (Mar. 19, April 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.29	11	9	0	11	8	0	23	7	1	5	0	1	16	51	1	28	43	2	10	37	2	22	34
Jan. 5	21	9	3	4	36	3	16	45	3	29	0	4	11	24	4	24	0	5	6	49	5	19	57
12	28	9	6	3	25	6	17	17	7	1	33	7	16	11	8	1	8	8	16	16	9	1	23
19	5	10	9	16	21	10	0	59	10	15	12	10	28	56	11	12	12	11	25	2	0	7	30
26	12	10	0	19	41	1	1	40	1	13	33	1	25	24	2	7	16	2	19	13	3	1	16
Feb. 2	19	10	3	13	28	3	25	49	4	8	19	4	21	0	5	3	52	5	16	56	6	0	14
9	26	10	6	13	46	6	27	35	7	11	40	7	26	0	8	10	33	8	25	14	9	9	56
16	4	11	9	24	32	10	8	55	10	23	0	11	6	41	11	19	58	0	2	52	0	15	25
23	11	11	0	27	41	1	9	44	1	21	39	2	3	31	2	15	24	2	27	23	3	9	31
Mar. 2	18	11	3	21	51	4	4	24	4	17	11	5	0	13	5	13	28	5	26	57	6	10	37
9	25	11	6	24	27	7	8	27	7	22	34	8	6	46	8	21	2	9	5	18	9	19	31
16	2	12	10	3	37	10	17	33	11	1	15	11	14	41	11	27	49	0	10	38	0	23	10
23	9	12	1	5	27	1	17	32	1	29	29	2	11	22	2	23	16	3	5	16	3	17	25
30	16	12	3	29	48	4	12	28	4	25	28	5	8	47	5	22	26	6	6	21	6	20	30
Apr. 6	23	12	7	4	48	7	19	11	8	3	33	8	17	50	9	2	1	9	16	3	9	29	54
13	30	12	10	13	34	10	27	2	11	10	18	11	23	21	0	6	12	0	18	49	1	1	13
20	7	1	1	13	26	1	25	29	2	7	25	2	19	18	3	1	11	3	13	9	3	25	16
27	14	1	4	7	38	4	20	20	5	3	24	5	16	52	6	0	46	6	15	3	6	29	38
May 4	21	1	7	14	24	7	29	13	8	13	58	8	28	31	9	12	49	9	26	48	10	10	30
11	28	1	10	23	54	11	7	2	11	19	57	0	2	39	0	15	11	0	27	33	1	9	46
18	4	2	1	21	52	2	3	50	2	15	44	2	27	35	3	9	26	3	21	22	4	3	28
25	11	2	4	15	47	4	28	25	5	11	26	5	24	55	6	8	53	6	23	19	7	8	8
June 1	18	2	7	23	13	8	8	24	8	23	30	9	8	23	9	22	54	10	7	1	10	20	44
8	25	2	11	4	3	11	17	2	11	29	44	0	12	13	0	24	31	1	6	40	1	18	43
15	32	2	2	0	41	2	12	35	2	24	26	3	6	17	3	18	9	4	0	6	4	12	11
22	7	3	4	24	29	5	7	4	5	20	2	6	3	25	6	17	18	7	1	41	7	16	30
29	14	3	8	1	38	8	16	57	9	2	15	9	17	21	10	2	5	10	16	24	11	0	14
July 6	21	3	11	13	37	11	26	36	0	9	14	0	21	37	1	3	47	1	15	49	1	27	46
13	28	3	2	9	39	2	21	30	3	3	22	3	15	15	3	27	12	4	9	14	4	21	25
20	4	4	5	3	47	5	16	25	5	29	22	6	12	42	6	26	27	7	10	39	7	25	16
27	11	4	8	10	14	8	25	25	9	10	38	9	25	44	10	10	32	10	24	57	11	8	55
Aug. 3	18	4	11	22	25	0	5	29	0	18	10	1	0	33	1	12	42	1	24	42	2	6	35
10	25	4	2	18	27	3	0	18	3	12	13	3	24	12	4	6	18	4	18	31	5	0	54
17	32	4	5	13	29	5	26	18	6	9	22	6	22	45	7	6	27	7	20	30	8	4	52
24	7	5	8	19	30	9	4	20	9	19	14	10	4	4	10	18	43	11	3	4	11	17	2
31	14	5	0	0	35	0	13	44	0	26	30	1	8	56	1	21	7	2	3	7	2	15	0
Sept. 7	21	5	2	26	52	3	8	55	3	20	43	4	2	50	4	15	7	4	27	35	5	10	17
14	28	5	5	23	12	6	6	20	6	19	43	7	3	18	7	17	7	8	1	8	8	15	19
21	4	6	8	29	39	9	14	5	9	28	32	10	12	56	10	27	12	11	11	16	11	25	3
28	11	6	0	8	31	0	21	38	1	4	25	1	16	53	1	29	6	2	11	7	2	23	1
Oct. 5	18	6	3	4	53	3	16	46	3	28	47	4	10	59	4	23	25	5	6	8	5	19	9
12	25	6	6	2	27	6	16	2	6	29	51	7	13	51	7	27	57	8	12	8	8	26	19
19	2	7	9	10	29	9	24	36	10	8	39	10	22	35	11	6	24	11	20	3	0	3	30
26	9	7	0	16	42	0	29	39	1	12	21	1	24	46	2	6	58	2	18	58	3	0	51
Nov. 2	16	7	3	12	41	3	24	34	4	6	34	4	18	46	5	1	16	5	14	7	5	27	21
9	23	7	6	10	59	6	24	59	7	9	16	7	23	44	8	8	18	8	22	50	9	7	14
16	30	7	9	21	28	10	5	29	10	19	17	11	2	54	11	16	19	11	29	32	0	12	36
23	7	8	0	25	28	1	8	9	1	20	38	2	2	56	2	15	2	2	27	0	3	8	51
30	14	8	3	20	39	4	2	29	4	14	26	4	26	35	5	9	2	5	21	52	6	5	9
Dec. 7	21	8	6	18	54	7	3	7	7	17	44	8	2	36	8	17	36	9	2	34	9	17	21
14	28	8	10	1	50	10	16	0	10	29	49	11	13	19	11	26	31	0	9	28	0	22	12
21	5	9	1	4	46	1	17	10	1	29	25	2	11	31	2	23	31	3	5	24	3	17	13
28	12	9	3	29	1	4	10	50	4	22	46	5	4	53	5	17	16	6	0	0	6	13	11
Jan 4	19	9	6	26	51	7	11	1	7	25	39	8	10	39	8	25	53	9	11	8	9	26	16

Ayanamsa on 1st Jan. : 23° 25′ 25″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	13 9	11 25 22	5 12 02	6 7 46	8 16 59	10 2 14	9 1 07	9 2 41
3	15 9	11 25 25	5 12 09	6 8 54	8 19 01	10 4 30	9 4 15	9 5 47
5	17 9	11 25 28	5 12 15	6 10 01	8 21 03	10 6 45	9 7 19	9 8 49
7	18 9	11 25 31	5 12 20	6 11 09	8 23 06	10 9 00	9 10 17	9 11 43
9	20 9	11 25 35	5 12 25	6 12 16	8 25 08	10 11 13	9 13 07	9 14 28
11	22 9	11 25 39	5 12 29	6 13 23	8 27 10	10 12 26	9 15 45	9 16 58
13	25 9	11 25 44	5 12 33	6 14 29	8 29 12	10 15 38	9 18 06	9 19 08
15	27 9	11 25 49	5 12 35	6 15 36	9 1 15	10 17 48	9 20 04	9 20 52
17	29 9	11 25 55	5 12 37	6 16 41	9 3 17	10 19 58	9 21 33	9 22 04
19	1 10	11 26 01	5R12 38	6 17 47	9 5 19	10 22 06	9 22 25	9R22 36
21	4 10	11 26 07	5 12 37	6 18 52	9 7 21	10 24 13	9 22 35	9 22 23
23	6 10	11 26 14	5 12 37	6 19 57	9 9 23	10 26 19	9 22 00	9 21s25
25	8 10	11 26 21	5 12 36	6 21 01	9 11 25	10 28 23	9 20 39	9 19 44
27	10 10	11 26 28	5 12 34	6 22 05	9 13 27	11 0 26	9 18 41	9 17 32
29	11 10	11 26 36	5 12 31	6 23 08	9 15 29	11 2 27	9 16 19	9 15 04
31	13 10	11 26 44	5 12 27	6 24 11	9 17 31	11 4 26	9 13 50	9 12 38
Feb. 2	15 10	11 26 53	5 12 23	6 25 13	9 19 33	11 6 23	9 11 30	9 10r27
4	17 10	11 27 02	5 12 18	6 26 15	9 21 35	11 8 18	9 9 32	9 8 45
6	19 10	11 27 11	5 12 12	6 27 16	9 23 36	11 10 11	9 8 05	9 7 34
8	21 10	11 27 21	5 12 06	6 28 17	9 25 38	11 12 01	9 7 11	9 6 57
10	23 10	11 27 30	5 11 58	6 29 17	9 27 39	11 13 49	9D6 50	9 6 51
12	25 10	11 27 41	5 11 50	7 0 17	9 29 41	11 15 34	9 6 58	9 7 13
14	27 10	11 27 51	5 11 42	7 1 16	10 1 42	11 17 16	9 7 33	9 7 59
16	30 10	11 28 02	5 11 32	7 2 14	10 3 43	11 18 55	9 8 30	9 9 06
18	2 11	11 28 13	5 11 22	7 3 12	10 5 44	11 20 31	9 9 46	9 10 31
20	4 11	11 28 24	5 11 12	7 4 08	10 7 45	11 22 03	9 11 19	9 12 11
22	6 11	11 28 36	5 11 01	7 5 05	10 9 46	11 23 30	9 13 06	9 14 03
24	8 11	11 28 48	5 10 49	7 6 00	10 11 47	11 24 54	9 15 04	9 16 07
26	10 11	11 29 00	5 10 37	7 6 54	10 13 48	11 26 13	9 17 12	9 18 20
28	11 11	11 29 12	5 10 24	7 7 48	10 15 48	11 27 26	9 19 30	9 20 42
Mar. 2	13 11	11 29 25	5 10 11	7 8 41	10 17 49	11 28 34	9 21 55	9 23 10
4	15 11	11 29 38	5 9 57	7 9 33	10 19 49	11 29 36	9 24 27	9 25 46
6	17 11	11 29 51	5 9 43	7 10 23	10 21 49	0 0 32	9 27 06	9 28 28
8	19 11	0 0 04	5 9 29	7 11 13	10 23 49	0 1 20	9 29 51	10 1 16
10	22 11	0 0 17	5 9 15	7 12 02	10 25 49	0 2 02	10 2 42	10 4 09
12	24 11	0 0 31	5 9 00	7 12 50	10 27 49	0 2 35	10 5 37	10 7 07
14	26 11	0 0 45	5 8 45	7 13 56	10 29 48	0 3 00	10 8 38	10 10 10
16	28 11	0 0 59	5 8 29	7 14 21	11 1 48	0 3 17	10 11 44	10 13 19
18	30 11	0 1 13	5 8 14	7 15 05	11 3 48	0R3 24	10 14 56	10 16 32
20	2 12	0 1 27	5 7 58	7 15 48	11 5 47	0 3 21	10 18 11	10 19s51
22	4 12	0 1 41	5 7 43	7 16 29	11 7 46	0 3 09	10 21 32	10 23 14
24	6 12	0 1 56	5 7 27	7 17 08	11 9 45	0 2 47	10 24 58	10 26 43
26	8 12	0 2 10	5 7 12	7 17 47	11 11 44	0 2 14	10 28 29	11 0 17
28	10 12	0 2 25	5 6 56	7 18 23	11 13 43	0 1 33	11 2 06	11 3 56
30	12 12	0 2 40	5 6 41	7 18 58	11 15 41	0 0 42	11 5 48	11 7 40
Apr. 1	14 12	0 2 55	5 6 26	7 19 31	11 17 40	11 29 43	11 9 35	11 11 30
3	16 12	0 3s10	5 6 11	7 20 02	11 19 38	11 28 37	11 13 27	11 15 26
5	18 12	0 3 25	5 5 57	7 20 31	11 21 36	11 27s27	11 17 25	11 19 26
7	20 12	0 3 40	5 5 42	7 20 59	11 23 34	11 26 12	11 21 28	11 23 31
9	22 12	0 3 55	5 5 28	7 21 24	11 25 32	11 24r57	11 25 35	11 27 40
11	25 12	0 4 10	5 5 15	7 21 47	11 27 30	11 23 42	11 29 45	0 1 51
13	27 12	0 4 25	5 5 01	7 22 07	11 29 28	11 22 29	0 3 57	0 6 03
15	29 12	0 4 40	5 4 49	7 22 26	0 1 25	11 21 21	0 8 09	0 10 15
17	1 1	0 4 56	5 4 36	7 22 41	0 3 23	11 20 19	0 12r 19	0 14 22

Ayanamsa on 1st Jan. : 23° 25′ 25″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	1	1	0 4s56	5R4 36	7 22 41	0 3 23	11R20 19	0 12r19	0 14 22
19	3	1	0 5 11	5 4 24	7 22 54	0 5 20	11 19 24	0 16 24	0 18 24
21	5	1	0 5 26	5 4 13	7 23 05	0 7 17	11 18 37	0 20 22	0 22 17
23	6	1	0 5 42	5 4 02	7 23 13	0 9 14	11 18 00	0 24 10	0 26 00
25	8	1	0 5 57	5 3 52	7 23 18	0 11 11	11 17 32	0 27 46	0 29 29
27	10	1	0 6 12	5 3 43	7R23 20	0 13 08	11 17 13	1 1 08	1 2 43
29	12	1	0 6 27	5 3 34	7 23 19	0 15 04	11D17 05	1 4 14	1 5 41
May 1	14	1	0 6 42	5 3 26	7 23 15	0 17 01	11 17 06	1 7 04	1 8 22
3	16	1	0 6 57	5 3 18	7 23 09	0 18 57	11 17 16	1 9 36	1 10 46
5	19	1	0 7 12	5 3 11	7 22 59	0 20 54	11 17 35	1 11 51	1 12 51
7	21	1	0 7 27	5 3 05	7 22 46	0 22 50	11 18 02	1 13 47	1 14 38
9	23	1	0 7 42	5 2 59	7 22 30	0 24 46	11 18 38	1 15 24	1 16 05
11	25	1	0 7r57	5 2 54	7 22 11	0 26 42	11 19 21	1 16 41	1 17 12
13	27	1	0 8 12	5 2 50	7 21 50	0 28 38	11 20 10	1 17 39	1 18 00
15	29	1	0 8 26	5 2 47	7 21 25	1 0 33	11 21 06	1 18 16	1 18 27
17	1	2	0 8 41	5 2 44	7 20 57	1 2 29	11 22 09	1R 8 34	1 18 35
19	3	2	0 8 55	5 2 42	7 20 27	1 4 25	11 23 16	1 18 32	1 18 24
21	5	2	0 9 10	5 2 41	7 19 55	1 6 20	11 24 29	1 18s12	1 17 55
23	7	2	0 9 24	5D2 40	7 19 21	1 8 16	11 25 46	1 17 35	1 17 12
25	8	2	0 9 38	5 2 41	7 18 44	1 10 11	11 27 07	1 16 45	1 16 16
27	10	2	0 9 51	5 2 42	7 18 07	1 12 06	11 28 33	1 15 45	1 15 12
29	13	2	0 10 05	5 2 43	7 17 28	1 14 01	0 0 02	1 14 39	1 14 05
31	15	2	0 10 19	5 2 46	7 16 48	1 15 56	0 1 34	1 13 31	1 12 59
June 2	17	2	0 10 32	5 2 49	7 16 07	1 17 51	0 3 10	1 12 27	1 11 58
4	20	2	0 10 45	5 2 53	7 15 26	1 19 46	0 4 49	1 11 31	1 11 07
6	22	2	0 10 58	5 2 57	7 14 45	1 21 41	0 6 30	1 10 46	1 10 29
8	24	2	0 11 11	5 3 02	7 14 05	1 23 36	0 8 14	1 10 15	1 10 06
10	26	2	0 11 23	5 3 08	7 13 25	1 25 30	0 10 01	1D10 01	1 10 00
12	28	2	0 11 35	5 3 15	7 12 47	1 27 25	0 11 49	1 10 04	1 10 12
14	30	2	0 11 47	5 3 22	7 12 10	1 29 20	0 13 40	1 10 25	1 10 42
16	1	3	0 11 59	5 3 30	7 11 35	2 1 15	0 15 32	1 11 04	1 11 31
18	3	3	0 12 11	5 3 38	7 11 03	2 3 09	0 17 26	1 12 02	1 12 37
20	5	3	0 12 22	5 3 47	7 10 32	2 5 04	0 19 22	1 13 16	1 14 00
22	7	3	0 12 33	5 3 57	7 10 05	2 6 58	0 21 19	1 14 48	1 15 40
24	9	3	0 12 44	5 4 07	7 9 40	2 8 53	0 23 18	1 16 36	1 17 36
26	11	3	0 12 55	5 4 18	7 9 18	2 10 47	0 25 18	1 18 40	1 19 48
28	13	3	0 13 05	5 4 30	7 9 00	2 12 41	0 27 19	1 21 00	1 22 15
30	16	3	0 13 15	5 4 42	7 8 44	2 14 36	0 29 22	1 23 35	1 24 57
July 2	18	3	0 13 25	5 4 55	7 8 32	2 16 30	1 1 25	1 26 24	1 27 54
4	20	3	0 13 34	5 5 08	7 8 24	2 18 25	1 3 30	1 29 28	2 1 05
6	22	3	0 13 43	5 5 21	7 8 18	2 20 19	1 5 36	2 2 45	2 4 29
8	24	3	0 13 52	5 5 36	7D8 16	2 22 13	1 7 43	2 6 16	2 8 06
10	26	3	0 14 00	5 5 50	7 8 17	2 24 08	1 9 50	2 9 59	2 11 55
12	28	3	0 14 08	5 6 06	7 8 22	2 26 02	1 11 59	2 13 53	2 15s53
14	30	3	0 14 16	5 6 21	7 8 30	2 27 57	1 14 08	2 17 56	2 20 00
16	2	3	0 14 23	5 6 38	7 8 41	2 29 51	1 16 18	2 22 06	2 24 12
18	4	3	0 14 32	5 6 54	7 8 55	3 1 46	1 18 29	2 26 20	2 28 28
20	6	3	0 14 37	5 7 11	7 9 12	3 3 40	1 20 41	3 0 36	3 2 44
22	7	3	0 14 44	5 7 29	7 9 33	3 5 35	1 22 53	3 4 52	3 6 59
24	10	3	0 14 49	5 7 47	7 9 56	3 7 29	1 25 05	3 9 06	3 11 11
26	12	3	0 14 55	5 8 05	7 10 22	3 9 24	1 27 19	3 13 16	3 15 19
28	14	3	0 15 00	5 8 24	7 10 50	3 11 19	1 29 33	3 17 21	3 19 21
30	17	3	0 15 05	5 8 43	7 11 22	3 13 13	2 1 47	3 21 20	3 23 18
Aug. 1	19	3	0 15 09	5 9 03	7 11 55	3 15 08	2 4 03	3 25 13	3 27 08

Ayanamsa on 1st Jan. : 23° 25′ 25″

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	गु ♃ बृ	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	19 3	0 15 09	5 9 03	7 11 55	3 15 08	2 4 03	3 25s13	3 27 08
3	21 3	0 15 13	5 9 23	7 12 32	3 17 03	2 6 18	3 29r00	4 0 51
5	23 3	0 15 17	5 9 43	7 13 10	3 18 58	2 8 35	4 2 41	4 4 29
7	25 3	0 15 20	5 10 04	7 13 51	3 20 53	2 10 51	4 6 15	4 8 00
9	27 3	0 15 23	5 10 25	7 14 34	3 22 48	2 13 09	4 9 43	4 11 24
11	28 3	0 15 25	5 10 46	7 15 19	3 24 43	2 15 27	4 13 04	4 14 43
13	30 3	0 15 27	5 11 07	7 16 05	3 26 38	2 17 45	4 16 20	4 17 55
15	2 4	0 15 29	5 11 29	7 16 54	3 28 33	2 20 03	4 19 29	4 21 01
17	4 4	0 15 30	5 11 51	7 17 45	4 0 29	2 22 23	4 22 32	4 24 02
19	6 4	0 15 31	5 12 14	7 18 38	4 2 24	2 24 42	4 25 29	4 26 56
21	8 4	0R15 31	5 12 37	7 19 32	4 4 20	2 27 02	4 28 20	4 29 43
23	10 4	0 15 31	5 13 00	7 20 28	4 6 15	2 29 22	5 1 05	5 2 24
25	13 4	0 15 30	5 13 23	7 21 25	4 8 11	3 1 43	5 3 42	5 4 59
27	15 4	0 15 29	5 13 46	7 22 24	4 10 07	3 4 04	5 6 13	5 7 26
29	17 4	0 15 28	5 14 10	7 23 24	4 12 03	3 6 26	5 8 36	5 9 45
31	19 4	0 15 26	5 14 34	7 24 26	4 13 59	3 8 48	5 10 51	5 11 55
Sept. 2	21 4	0 15 24	5 14 58	7 25 29	4 15 55	3 11 10	5 12 57	5 13 56
4	23 4	0 15 21	5 15 22	7 26 33	4 17 51	3 13 32	5 14 52	5 15 46
6	25 4	0 15 18	5 15 46	7 27 38	4 19 47	3 15 55	5 16 37	5 17 24
8	27 4	0 15 14	5 16 11	7 28 45	4 21 44	3 18 19	5 18 08	5 18 49
10	29 4	0 15 10	5 16 36	7 29 53	4 23 40	3 20 42	5 19 25	5 19 58
12	1 5	0 15 06	5 17 01	8 1 02	4 25 37	3 23 06	5 20 25	5 20 48
14	3 5	0 15 01	5 17 26	8 2 11	4 27 34	3 25 31	5 21 06	5 21 18
16	5 5	0 14 56	5 17 51	8 3 22	4 29 31	3 27 55	5R21 25	5 21s25
18	7 5	0 14 51	5 18 16	8 4 34	5 1 28	4 0 20	5 21 18	5 21 05
20	9 5	0 14 45	5 18 42	8 5 47	5 3 25	4 2 45	5 20 45	5 20 18
22	11 5	0 14 39	5 19 07	8 7 01	5 5 23	4 5 11	5 19 44	5 19 02
24	13 5	0 14 33	5 19s33	8 8 15	5 7 20	4 7 36	5 18 14	5 17 20
26	16 5	0 14 26	5 19 59	8 9 30	5 9 18	4 10 02	5 16 21	5 15 18
28	18 5	0 14 19	5 20 24	8 10 47	5 11 15	4 12 29	5 14 12	5 13◎04
30	20 5	0 14 12	5 20 50	8 12 03	5 13 13	4 14 55	5 11 57	5 10 52
Oct. 2	22 5	0 14 04	5 21 16	8 13 21	5 15 11	4 17 22	5 9 51	5 8 55
4	23 5	0 13 56	5 21 42	8 14 39	5 17 09	4 19 49	5 8 07	5 7r27
6	25 5	0 13 48	5 22 08	8 15 58	5 19 08	4 22 16	5 6 56	5 6 36
8	27 5	0 13 39	5 22◎34	8 17 17	5 21 06	4 24 43	5D6 26	5 6 27
10	29 5	0 13 31	5 23 00	8 18 37	5 23 05	4 27 11	5 6 38	5 7 00
12	1 6	0 13 22	5 23 26	8 19 58	5 25 03	4 29 39	5 7 32	5 8 13
14	3 6	0 13 13	5 23 52	8 21 19	5 27 02	5 2 07	5 9 02	5 9 59
16	5 6	0 13 04	5 24 18	8 22 41	5 29 01	5 4 35	5 11 03	5 12 13
18	8 6	0 12 55	5 24 44	8 24 03	6 1 00	5 7 04	5 13 29	5 14 49
20	10 6	0 12 45	5 25r10	8 25 26	6 3 00	5 9 32	5 16 13	5 17 40
22	12 6	0 12 36	5 25 36	8 26 49	6 4 59	5 12 01	5 19 10	5 20 43
24	14 6	0 12 26	5 26 02	8 28 13	6 6 58	5 14 30	5 22 17	5 23 53
26	16 6	0 12 17	5 26 28	8 29 37	6 8 58	5 16 59	5 25 30	5 27 08
28	18 6	0 12 07	5 26 53	9 1 02	6 10 58	5 19 28	5 28 46	6 0 25
30	20 6	0 11◎57	5 27 19	9 2 26	6 12 57	5 21 58	6 2 05	6 3s44
Nov. 1	22 6	0 11 48	5 27 44	9 3 52	6 14 57	5 24 27	6 5 24	6 7 03
3	24 6	0 11 38	5 28 10	9 5 17	6 16 58	5 26 57	6 8 43	6 10 22
5	25 6	0 11 28	5 28 35	9 6 43	6 18 58	5 29 27	6 12 01	6 13 40
7	27 6	0 11 19	5 29 00	9 8 09	6 20 58	6 1 57	6 15 18	6 16 56
9	29 6	0 11 09	5 29 25	9 9 36	6 22 59	6 4 27	6 18 34	6 20 12
11	2 7	0 11 00	5 29 50	9 11 03	6 24 59	6 6 57	6 21 49	6 23 26
13	4 7	0 10 51	6 0 15	9 12 30	6 27 00	6 9 27	6 25 02	6 26 38
15	6 7	0 10 42	6 0 39	9 13 57	6 29 01	6 11 57	6 28 14	6 29◎50

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ गु	म ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	6	7	0R10 42	6 0 39	9 13 57	6 29 01	6 11 57	6 28s14	6 29ð50
17	8	7	0 10 33	6 1 04	9 15 25	7 1 02	6 14 27	7 1 25	7 3 01
19	10	7	0 10 25	6 1 28	9 16 52	7 3 03	6 16 58	7 4 35	7 6 10
21	13	7	0 10 16	6 1 51	9 18 20	7 5 04	6 19 28	7 7 45	7 9 19
23	15	7	0 10 08	6 2 15	9 19 48	7 7 05	6 21 59	7 10 53	7 12 27
25	16	7	0 10 00	6 2 39	9 21 17	7 9 07	6 24 29	7 14 00	7 15 34
27	18	7	0 9 53	6 3 02	9 22 45	7 11 08	6 27 00	7 17 07	7 18 41
29	20	7	0 9 45	6 3 25	9 24 14	7 13 09	6 29 31	7 20 14	7 21 47
Dec. 1	22	7	0 9 38	6 3 47	9 25 43	7 15 11	7 2 01	7 23 20	7 24 53
3	24	7	0 9 31	6 4 10	9 27 11	7 17 13	7 4 32	7 26 26	7 27 59
5	26	7	0 9 25	6 4 32	9 28 40	7 19 14	7 7 03	7 29 32	8 1 05
7	28	7	0 9 19	6 4 54	10 0 10	7 21 16	7 9 34	8 2 37	8 4r10
9	30	7	0 9 13	6 5 15	10 1 39	7 23 18	7 12 05	8 5 42	8 7 15
11	2	8	0 9 08	6 5 36	10 3 08	7 25 20	7 14 36	8 8 47	8 10 18
13	5	8	0 9 03	6 5 57	10 4 37	7 27 22	7 17 07	8 11 50	8 13 21
15	7	8	0 8 59	6 6 17	10 6 07	7 29 24	7 19 38	8 14 51	8 16 21
17	9	8	0 8 55	6 6 37	10 7 36	8 1 26	7 22 09	8 17 51	8 19 19
19	11	8	0 8 51	6 6 57	10 9 06	8 3 29	7 24 39	8 20 47	8 22 13
21	13	8	0 8 45	6 7 16	10 10 35	8 5 31	7 27 10	8 23 38	8 25 01
23	15	8	0 8 45	6 7 34	10 12 05	8 7 33	7 29 41	8 26 22	8 27 40
25	17	8	0 8 42	6 7 53	10 13 34	8 9 35	8 2 12	8 28 56	9 0 08
27	18	8	0 8 40	6 8 11	10 15 04	8 11 37	8 4s43	9 1 16	9 2 20
29	20	8	0 8 39	6 8 28	10 16 34	8 13 40	8 7 14	9 3 19	9 4 11
31	22	8	0 8 38	6 8 45	10 18 03	8 15 42	8 9 45	9 4 57	9 5 35
Jan. 2	24	8	0 8 37	6 9 01	10 19 33	8 17 44	8 12 16	9 6 04	9 6 25

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	11 10 51	11 11 11	5R10 33	7 4 21	5 R 1 40	23 25 25
February	1	11 7 50	11 9 33	5 10 20	7 5 4	5 1 21	23 25 31
March	1	11 6 50	11 8 3	5 9 28	7 R 5 17	5 0 43	23 25 35
April	1	11 6 53	11 6 25	5 8 9	7 5 1	4 29 54	23 25 38
May	1	11 6 18	11 4 50	5 7 1	7 4 23	4 29 15	23 25 42
June	1	11 3 59	11 3 11	5 6 27	7 3 33	4D28 59	23 25 47
July	1	11 0 49	11 1 36	5D 6 41	7 2 52	4 29 11	23 25 53
August	1	10 28 26	10 29 58	5 7 42	7 2 31	4 29 52	23 25 58
September	1	10 27 44	10 28 18	5 9 19	7D 2 40	5 0 52	23 26 3
October	1	10 27 47	10 26 44	5 11 11	7 3 17	5 1 58	23 26 6
November	1	10 26 51	10 25 5	5 13 3	7 4 16	5 3 1	23 26 10
December	1	10 24 3	10 23 30	5 14 30	7 5 23	5 3 42	23 26 15
January	1	10 20 33	10 21 51	5 15 17	7 6 27	5R 3 57	23 26 21

Combustion or Heliacal Setting of Planets

Saturn : From Apr. 4 to May 11.
Jupiter : From Sept. 25 to Oct. 20.
Mars : — —
Venus : From Apr. 5 to Apr. 9, Dec. 27 to Feb. 18 ('70).
Mercury : From Jan. 24 to Feb. 3, Mar. 21 to Apr. 17, May 21 to June 10, July 13 to Aug. 3, Sept. 17 to Oct. 5, Oct. 31 to Dec. 8.

Retrogression of Planets

Planet	Retrograde						Direct					
	Date			Long.			Date			Long.		
		h	m	s	°	'		h	m	s	°	'
Mercury	Jan. 20,	16	23	9	22	35	Feb. 10,	15	15	9	6	51
	May 17,	24	42	1	18	35	June 10,	21	15	1	10	0
	Sept. 16,	18	8	5	21	25	Oct. 8,	15	24	5	6	27
Venus	Mar. 18,	17	19	0	3	24	Apr. 29,	24	53	11	17	4
Mars	Apr. 27,	16	53	7	23	20	July 8,	11	38	7	8	16
Jupiter	Jan. 20,	18	6	5	12	38	May 23,	13	56	5	2	40
Saturn	Aug. 21,	11	1	0	15	31	Jan.('70) 3,	26	40	0	8	37
Uranus	Jan. 8,	13	12	5	10	35	June 7,	11	29	5	6	26
Neptune	Feb. 28,	25	43	7	5	17	Aug. 7,	20	40	7	2	30
Pluto	—	—		—			June 2,	21	7	4	28	59
	Dec. 30,	15	0	5	3	57	—	—		—		

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
	—					Jan.	3	23	58	Māgha	Vadi
Jan.	18	10	29	Māgha	Sukla	Feb.	2	18	26	Phālguna	,,
Feb.	16	21	55	Phālguna	,,	Mar.	4	10	47	Caitra	,,
Mar.	18	10	21	Caitra	,,	Apr.	2	24	15	Vaiśākha	,,
Apr.	16	23	46	Vaiśākha	,,	May	2	10	43	Jyaiṣṭha	,,
May	16	13	56	Jyaiṣṭha	,,	May	31	18	48	Āṣāḍha	,,
June	14	28	39	Āṣāḍha (*Mala*)	,,	June	29	25	34	Āṣāḍha (*Adhika*)	,,
July	14	19	41	Āṣāḍha	,,	July	29	8	15	Śrāvaṇa	,,
Aug.	13	10	47	Śrāvaṇa	,,	Aug.	27	16	2	Bhādra	,,
Sept.	11	25	26	Bhādra	,,	Sept.	25	25	51	Āśvina	,,
Oct.	11	15	9	Āśvina	,,	Oct.	25	14	14	Kārtika	,,
Nov.	9	27	41	Kārtika	,,	Nov.	23	29	24	Agrahā	,,
Dec.	9	15	12	Agrahā	,,	Dec.	23	23	5	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	24	13	Karkaṭa	on	July	16	9	10
Kumbha	on	Feb.	12	13	13	Siṁha	on	Aug.	16	17	32
Mina	on	Mar.	14	10	8	Kanyā	on	Sept.	16	17	22
Meṣa	on	Apr.	13	18	42	Tulā	on	Oct.	16	29	14
Vṛṣa	on	May	14	15	39	Vṛścika	on	Nov.	15	28	55
Mithuna	on	June	14	22	18	Dhanus	on	Dec.	15	19	31

Saka era 1891-92, Samvat 2026-27 (Apr. 7, Oct. 31), B.S. 1376-77 (Apr. 15), Kollam era 1145-46 (Aug. 17), 44 Sadharana (Apr. 7, 14)

Nirayana Long. of Moon (च) ट) at 5-30 A.M. I.S.T.

Date	Beng. Date		Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec. 28	12	9	3	29	1	4	10	50	4	22	46	5	4	53	5	17	16	6	0	0	6	13	11
Jan. 4	19	9	6	26	51	7	11	1	7	25	39	8	10	39	8	25	53	9	11	8	9	26	16
11	26	9	10	11	5	10	25	32	11	9	34	11	23	10	0	6	23	0	19	15	1	1	50
18	4	10	1	14	12	1	26	24	2	8	27	2	20	24	3	2	17	3	14	7	3	25	56
25	11	10	4	7	46	4	19	40	5	1	40	5	13	50	5	26	14	6	8	56	6	22	0
Feb. 1	18	10	7	5	31	7	19	29	8	3	54	8	18	43	9	3	49	9	19	4	10	4	17
8	25	10	10	19	18	11	3	59	11	18	15	0	2	4	0	15	26	0	28	23	1	11	0
15	3	11	1	23	19	2	5	25	2	17	22	2	29	14	3	11	3	3	22	52	4	4	44
22	10	11	4	16	40	4	28	43	5	10	54	5	23	15	6	5	49	6	18	39	7	1	46
Mar. 1	17	11	7	15	12	7	29	0	8	13	9	8	27	38	9	12	23	9	27	19	10	12	18
8	24	11	10	27	11	11	11	52	11	26	13	0	10	10	0	23	41	1	6	46	1	19	28
15	1	12	2	1	50	2	13	57	2	25	53	3	7	43	3	19	31	4	1	21	4	13	17
22	8	12	4	25	22	5	7	37	5	20	4	6	2	44	6	15	37	6	28	44	7	12	5
29	15	12	7	25	39	8	9	27	8	23	27	9	7	40	9	22	3	10	6	33	10	21	7
Apr. 5	22	12	11	5	38	11	20	2	0	4	12	0	18	4	1	1	35	1	14	42	1	27	27
12	29	12	2	9	52	2	22	0	3	3	57	3	15	48	3	27	36	4	9	29	4	21	29
19	5	1	5	3	41	5	16	8	5	28	52	6	11	52	6	25	10	7	8	41	7	22	25
26	12	1	8	6	18	8	20	18	9	4	22	9	18	30	10	2	39	10	16	49	11	0	57
May 3	19	1	11	15	2	11	29	0	0	12	49	0	26	24	1	9	42	1	22	41	2	5	22
10	26	1	2	17	45	2	29	53	3	11	50	3	23	40	4	5	29	4	17	22	4	29	24
17	3	2	5	11	41	5	24	16	6	7	12	6	20	30	7	4	9	7	18	6	8	2	16
24	10	2	8	16	34	9	0	55	9	15	15	9	29	29	10	13	37	10	27	37	11	11	29
31	17	2	11	25	12	0	8	47	0	22	11	1	5	23	1	18	21	2	1	6	2	13	36
June 7	24	2	2	25	51	3	7	55	3	19	49	4	1	38	4	13	26	4	25	18	5	7	20
14	31	2	5	19	37	6	2	15	6	15	16	6	28	43	7	12	35	7	26	50	8	11	23
21	6	3	8	26	6	9	10	51	9	25	32	10	10	3	10	24	20	11	8	22	11	22	9
28	13	3	0	5	40	0	18	58	1	2	2	1	14	53	1	27	32	2	9	59	2	22	15
July 5	20	3	3	4	20	3	16	17	3	28	7	4	9	54	4	21	41	5	3	33	5	10	34
12	27	3	5	27	50	6	10	26	6	23	26	7	6	53	7	20	48	8	5	9	8	19	52
19	2	4	9	4	50	9	19	54	10	4	56	10	19	46	11	4	20	11	18	33	0	2	25
26	9	4	0	15	55	0	29	5	1	11	57	1	24	33	2	6	57	2	19	9	3	1	12
Aug. 2	16	4	3	13	8	3	24	59	4	6	46	4	18	32	5	0	21	5	12	15	5	24	18
9	23	4	6	6	35	6	19	9	7	2	5	7	15	26	7	29	14	8	13	29	8	28	9
16	30	4	9	13	8	9	28	18	10	13	30	10	28	35	11	13	24	11	27	52	0	11	54
23	6	5	0	25	30	1	8	41	1	21	30	2	4	0	2	16	14	2	28	17	3	10	12
30	13	5	3	22	1	4	3	48	4	15	36	4	27	25	5	9	20	5	21	21	6	3	32
Sept. 6	20	5	6	15	54	6	28	32	7	11	27	7	24	43	8	8	22	8	22	24	9	6	49
13	27	5	9	21	35	10	6	35	10	21	43	11	6	49	11	21	44	0	6	21	0	20	33
20	3	6	1	4	17	1	17	34	2	0	26	2	12	55	2	25	7	3	7	6	3	18	56
27	10	6	4	0	43	4	12	30	4	24	20	5	6	16	5	18	21	6	0	35	6	13	0
Oct. 4	17	6	6	25	36	7	8	25	7	21	23	8	4	46	8	18	21	9	2	12	9	16	21
11	24	6	10	0	46	10	15	26	11	0	14	11	15	5	11	29	51	0	14	24	0	28	36
18	1	7	1	12	24	1	25	46	2	8	41	2	21	13	3	3	26	3	15	25	3	27	15
25	8	7	4	9	2	4	20	50	5	2	44	5	14	48	5	27	4	6	9	34	6	22	17
Nov. 1	15	7	7	5	15	7	18	24	8	1	45	8	15	17	8	28	58	9	12	49	9	26	48
8	22	7	10	10	58	10	25	15	11	9	38	11	24	4	0	8	26	0	22	40	1	6	40
15	29	7	1	20	20	2	3	37	2	16	32	2	29	4	3	11	19	3	23	19	4	5	9
22	6	8	4	16	57	4	23	46	5	10	43	5	22	52	6	5	17	6	18	0	7	1	1
29	13	8	7	14	20	7	27	54	8	11	41	8	25	36	9	9	37	9	23	41	10	7	46
Dec. 6	20	8	10	21	51	11	5	56	11	19	59	0	3	59	0	17	54	1	1	41	1	15	16
13	27	8	1	28	36	2	11	40	2	24	25	3	6	53	3	19	5	4	1	4	4	12	55
20	4	9	4	24	43	5	6	32	5	18	29	6	0	39	6	13	6	6	25	54	7	9	4
27	11	9	7	22	38	8	6	32	8	20	43	9	5	6	9	19	35	10	4	4	10	18	28
Jan. 3	18	9	11	2	45	11	16	51	0	0	48	0	14	32	0	28	6	1	11	27	1	24	36

Ayanamsa on 1st Jan. : 23° 26′ 21″

Date	*Tithi* & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	23 8	0R 8 37	6 8 53	10 18 48	8 16 43	8 11s01	9 5 35	9 6 04
3	25 8	0D 8 37	6 9 09	10 20 17	8 18 45	8 13 32	9 6 25	9R 6 33
5	27 8	0 8 37	6 9 25	10 21 47	8 20 48	8 16 03	9 6 31	9 6 18
7	29 8	0 8 37	6 9 40	10 23 16	8 22 50	8 18 34	9 5 52	9 5s15
9	2 9	0 8 38	6 9 55	10 24 46	8 24 52	8 21 05	9 4 27	9 3 29
11	4 9	0 8 40	6 10 09	10 26 15	8 26 55	8 23 36	9 2 22	9 1 09
13	6 9	0 8 42	6 10 22	10 27 44	8 28 57	8 26 07	8 29◎51	8 28 32
15	8 9	0 8 44	6 10 35	10 29 13	9 0 59	8 28 38	8 27 13	8 25 58
17	10 9	0 8 47	6 10 47	11 0 43	9 3 01	9 1 09	8 24 47	8 23r44
19	12 9	0 8 50	6 10 59	11 2 12	9 5 04	9 3 39	8 22 46	8 22 02
21	14 9	0 8 53	6 11 10	11 3 41	9 7 06	9 6 10	8 21 24	8 20 56
23	16 9	0 8 57	6 11 20	11 5 09	9 9 08	9 8 41	8 20 37	8D20 27
25	18 9	0 9 02	6 11 30	11 6 38	9 11 10	9 11◎12	8 20 26	8 20 32
27	20 9	0 9 07	6 11 39	11 8 07	9 13 12	9 13 42	8 20 46	8 21 06
29	21 9	0 9 12	6 11 47	11 9 35	9 15 14	9 16 13	8 21 33	8 22 05
31	23 9	0 9 18	6 11 55	11 11 04	9 17 15	9 18 44	8 22 42	8 23 24
Feb. 2	26 9	0 9 24	6 12 02	11 12 32	9 19 17	9 21 15	8 24 10	8 25 00
4	28 9	0 9 30	6 12 08	11 14 00	9 21 19	9 23 45	8 25 53	8 26 50
6	30 9	0 9 37	6 12 14	11 15 29	9 23 21	9 26 16	8 27 50	8 28 52
8	2 10	0 9 44	6 12 18	11 16 57	9 25 22	9 28 46	8 29 57	9 1 04
10	5 10	0 9 52	6 12 22	11 18 24	9 27 24	10 1 17	9 2 13	9 3 24
12	7 10	0 10 00	6 12 26	11 19 52	9 29 25	10 3 47	9 4 37	9 5 52
14	9 10	0 10 08	6 12 28	11 21 20	10 1 26	10 6 18	9 7 08	9 8 26
16	11 10	0 10 17	6 12 30	11 22 47	10 3 28	10 8 48	9 9 45	9 11 06
18	12 10	0 10 26	6R12 31	11 24 15	10 5 29	10 11r18	9 12 27	9 13 50
20	14 10	0 10 36	6 12 32	11 25 42	10 7 30	10 13 48	9 15 15	9 16 40
22	16 10	0 10 45	6 12 31	11 27 09	10 9 31	10 16 18	9 18 07	9 19 44
24	18 10	0 10 55	6 12 30	11 28 36	10 11 31	10 18 48	9 21 03	9 22 53
26	20 10	0 11 06	6 12 28	0 0 02	10 13 32	10 21 18	9 24 04	9 25 36
28	23 10	0 11 16	6 12 26	0 1 29	10 15 32	10 23 48	9 27 09	9 28 43
Mar. 2	24 10	0 11 27	6 12 22	0 2 55	10 17 33	10 26 18	10 0 18	10 1s54
4	26 10	0 11 39	6 12 18	0 4 22	10 19 33	10 28 48	10 3 32	10 5 10
6	28 10	0 11 50	6 12 13	0 5 48	10 21 34	11 1 17	10 6 49	10 8 30
8	1 11	0 12 02	6 12 07	0 7 14	10 23 34	11 3 47	10 10 11	10 11 54
10	3 11	0 12 14	6 12 01	0 8 40	10 25 34	11 6 17	10 13 38	10 15 23
12	5 11	0 12 26	6 11 54	0 10 05	10 27 34	11 8 46	10 17 09	10 18 56
14	7 11	0 12 39	6 11 46	0 11 31	10 29 33	11 11 15	10 20 45	10 22 34
16	9 11	0 12 52	6 11 38	0 12 56	11 1 33	11 13 44	10 24 25	10 26 17
18	11 11	0 13 05	6 11 29	0 14 21	11 3 32	11 16 14	10 28 10	11 0 04
20	13 11	0 13 18	6 11 19	0 15 46	11 5 32	11 18 43	11 2 00	11 3 56
22	14 11	0 13 31	6 11 09	0 17 11	11 7 31	11 21 11	11 5 54	11 7◎53
24	16 11	0 13 45	6 10 58	0 18 36	11 9 30	11 23 40	11 9 52	11 11 53
26	18 11	0 13 58	6 10 47	0 20 00	11 11 29	11 26 09	11 13 54	11 15 56
28	20 11	0 14 12	6 10 35	0 21 25	11 13 27	11 28 37	11 17 58	11 20 01
30	23 11	0 14 26	6 10 22	0 22 49	11 15 26	0 1 06	11 22 04	11 24 06
Apr. 1	25 11	0 14 40	6 10 10	0 24 13	11 17 24	0 3 34	11 26 06	11 28r09
3	27 11	0 14 55	6 9 56	0 25 37	11 19 23	0 6 02	0 0 09	0 2 07
5	29 11	0 15 09	6 9 43	0 27 00	11 21 21	0 8 30	0 4 03	0 5 57
7	1 12	0 15 24	6 9 29	0 28 24	11 23 19	0 10 58	0 7 49	0 9 37
9	4 12	0 15 39	6 9 14	0 29 47	11 25 17	0 13 26	0 11 22	0 13 04
11	6 12	0 15 54	6 9 00	1 1 11	11 27 15	0 15 54	0 14 41	0 16 14
13	7 12	0 16 08	6 8 45	1 2 34	11 29 13	0 18 22	0 17 42	0 19 06
15	9 12	0 16 23	6 8 30	1 3 57	0 1 10	0 20 49	0 20 25	0 21 38
17	11 12	0 16 39	6 8 15	1 5 19	0 3 08	0 23 16	0 22 46	0 23 49

Ayanamsa on 1st Jan. : 23° 26′ 21″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	11	12	0 16s39	6 R8 15	1 5 19	0 3 08	0 23 16	0 22 46	0 23 49
19	13	12	0 16 54	6 7 59	1 6 42	0 5 05	0 25 43	0 24 46	0 25 38
21	15	12	0 17 09	6 7s44	1 8 04	0 7 02	0 28 10	0 26 24	0 27 04
23	17	12	0 17 24	6 7 29	1 9 27	0 8 59	1 0 37	0 27 38	0 28 07
25	19	12	0 17 40	6 7 13	1 10 49	0 10 56	1 3 04	0 28 29	0 28 46
27	21	12	0 17 55	6 6 58	1 12 11	0 12 53	1 5 31	0 28 57	0R29 02
29	23	12	0 18 10	6 6 43	1 13 33	0 14 49	1 7 57	0 29 02	0 28 56
May 1	26	12	0 18⊙26	6 6 28	1 14 54	0 16 46	1 10 23	0 28 46	0 28 30
3	28	12	0 18 41	6 6 13	1 16 16	0 18 42	1 12 50	0 28 10	0 27 46
5	30	12	0 18 57	6 5 59	1 17 37	0 20 39	1 15 16	0 27 19	0 26 48
7	2	1	0 19 12	6 5 44	1 18 58	0 22 35	1 17 41	0 26 15	0 25 40
9	4	1	0 19 27	6 5 30	1 20 19	0 24 31	1 20 07	0 25⊙04	0 24 27
11	6	1	0 19 43	6 5 17	1 21 40	0 26 27	1 22 33	0 23 51	0 23 15
13	8	1	0 19 58	6 5 03	1 23 01	0 28 23	1 24 58	0 22 40	0 22 08
15	9	1	0 20 13	6 4 50	1 24 22	1 0 19	1 27 23	0 21 38	0 21 10
17	11	1	0 20 29	6 4 38	1 25 42	1 2 14	1 29 48	0 20 46	0 20 26
19	13	1	0 20 44	6 4 26	1 27 03	1 4 10	2 2 13	0 20 09	0 19 57
21	15	1	0 20 59	6 4 15	1 28 23	1 6 05	2 4 38	0 19r49	0D19 46
23	17	1	0 21 14	6 4 04	1 29 43	1 8 01	2 7 02	0 19 47	0 19 52
25	20	1	0 21r29	6 3 54	2 1 03	1 9 56	2 9 27	0 20 02	0 20 17
27	22	1	0 21 44	6 3 44	2 2 23	1 11 51	2 11 51	0 20 36	0 20 59
29	24	1	0 21 58	6 3 35	2 3 43	1 13 46	2 14 15	0 21 37	0 21 58
31	26	1	0 22 13	6 3 26	2 5 02	1 15 41	2 16 38	0 22 34	0 23 14
June 2	28	1	0 22 28	6 3 18	2 6 22	1 17 37	2 19 02	0 23 58	0 24 45
4	30	1	0 22 42	6 3 11	2 7 41	1 19 31	2 21 25	0 25 36	0 26 31
6	2	2	0 22 56	6 3 05	2 9 01	1 21 26	2 23 48	0 27 29	0 28 31
8	4	2	0 23 10	6 2 59	2 10 20	1 23 21	2 26 11	0 29 36	1 0 44
10	6	2	0 23 24	6 2 54	2 11 39	1 25 16	2 28 34	1 1 56	1 3 10
12	8	2	0 23 38	6 2 49	2 12s58	1 27 11	3 0 56	1 4 28	1 5 49
14	10	2	0 23 52	6 2 45	2 14 17	1 29 05	3 3 19	1 7 13	1 8 40
16	12	2	0 24 05	6 2 42	2 15 35	2 1 00	3 5 41	1 10 10	1 11 43
18	14	2	0 24 18	6 2 40	2 16 54	2 2 55	3 8 02	1 13 19	1 14 57
20	16	2	0 24 32	6 2 39	2 18 12	2 4 49	3 10 24	1 16 39	1 18 24
22	18	2	0 24 44	6 2 38	2 19 31	2 6 43	3 12 45	1 20 11	1 22 01
24	21	2	0 24 57	6D2 37	2 20 49	2 8 38	3 15 05	1 23 54	1 25 49
26	23	2	0 25 10	6 2 38	2 22 07	2 10 32	3 17 26	1 27 47	1 29s47
28	25	2	0 25 22	6 2 39	2 23 25	2 12 27	3 19 46	2 1 49	2 3 54
30	27	2	0 25 34	6 2 41	2 24 44	2 14 21	3 22 06	2 5 59	2 8 07
July 2	29	2	0 25 46	6 2 44	2 26 02	2 16 16	3 24 26	2 10 15	2 12 25
4	1	3	0 25 57	6 2 47	2 27 19	2 18 10	3 26 45	2 14 35	2 16 45
6	3	3	0 26 08	6 2 52	2 28 37	2 20 05	3 29 04	2 18⊙56	2 21 06
8	4	3	0 26 19	6 2 56	2 29 55	2 21 59	4 1 22	2 23 15	2 25 24
10	6	3	0 26 30	6 3 02	3 -1 13	2 23 53	4 3 40	2 27 32	2 29 39
12	8	3	0 26 41	6 3 08	3 2 30	2 25 48	4 5 58	3 1 45	3 3 49
14	10	3	0 26 51	6 3 15	3 3 48	2 27 42	4 8 15	3 5 52	3 7 53
16	12	3	0 27 01	6 3 22	3 5 05	2 29 37	4 10 32	3 9 53	3 11r50
18	15	3	0 27 10	6 3 31	3 6 22	3 1 31	4 12 48	3 13 46	3 15 41
20	17	3	0 27 19	6 3 39	3 7 40	3 3 26	4 15 04	3 17 33	3 19 24
22	19	3	0 27 28	6 3 49	3 8 57	3 5 20	4 17 20	3 21 13	3 23 00
24	21	3	0 27 27	6 3 59	3 10 14	3 7 15	4 19 34	3 24 45	3 26 29
26	24	3	0 27 45	6 4 10	3 11 31	3 9 09	4 21 48	3 28 10	3 29 50
28	26	3	0 27 53	6 4 21	3 12 48	3 11 04	4 24 02	4 1 28	4 3 05
30	27	3	0 28 01	6 4 33	3 14 05	3 12 59	4 26 15	4 4 40	4 6 13
Aug. 1	29	3	0 28 08	6 4 45	3 15 22	3 14 53	4 28 28	4 7 44	4 9 13

Ayanamsa on 1st Jan. : 23° 26′ 21″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	29	3	0 28 08	6 4 45	3 15s22	3 14 53	4 28 28	4 7 44	4 9 13
3	1	4	0 28·15	6 4 58	3 16☌39	3 16 48	5 0 40	4 10 41	4 12 06
5	3	4	0 28 21	6 5 11	3 17 56	3 18 43	5 2 51	4 13 30	4 14 52
7	5	4	0 28 27	6 5 26	3 19 12	3 20 88	5 5 01	4 16 13	4 17 31
9	7	4	0 28 33	6 5 40	3 20 29	3 22 33	5 7 11	4 18 47	4 20 01
11	9	4	0 28 38	6 5 55	3 21 46	3 24 28	5 9 20	4 21 13	4 22 23
13	11	4	0 28 43	6 6 11	3 23 02	3 26 23	5 11 28	4 23 31	4 24 36
15	13	4	0 28 48	6 6 27	3 24 19	3 28 19	5 13 35	4 25 38	4 26 38
17	15	4	0 28 52	6 6 43	3 25 36	4 0 14	5 15 41	4 27 36	4 28 30
19	18	4	0 28 56	6 7 00	3 26 52	4 2 09	5 17 46	4 29 22	5 0 10
21	20	4	0 28 59	6 7 18	3 28 09	4 4 05	5 19 49	5 0 55	5 1 37
23	22	4	0 29 02	6 7 36	3 29 25	4 6 00	5 21 52	5 2 14	5 2 48
25	24	4	0 29 04	6 7 54	4 0 41	4 7 56	5 23 54	5 3 18	5 3 43
27	26	4	0 29 06	6 8 13	4 1 58	4 9 52	5 25 54	5 4 03	5 4 19
29	28	4	0 29 08	6 8 32	4 3 14	4 11 48	5 27 53	5 4 29	5R4 33
31	30	4	0 29 09	6 8 52	4 4 31	4 13 44	5 29 50	5 4s32	5 4 25
Sept. 2	1	5	0 29 10	6 9 12	4 5 47	4 15 40	6 1 46	5 4 12	5 3 53
4	3	5	0R29 10	6 9 32	4 7 03	4 17 36	6 3 41	5 3 27	5 2 55
6	5	5	0 29 10	6 9 53	4 8 20	4 19 33	6 5 33	5 2 17	5 1 33
8	7	5	0 29 10	6 10 14	4 9 36	4 21 29	6 7 24	5 0 44	4 29 51
10	9	5	0 29 09	6 10 35	4 10 52	4 23 26	6 9 12	4 28 54	4 27 54
12	11	5	0 29 07	6 10 57	4 12 08	4 25 22	6 10 58	4 26☌53	4 25 52
14	14	5	0 29 06	6 11 19	4 13r25	4 27 19	6 12 42	4 24 53	4 23 56
16	16	5	0 29 03	6 11 41	4 14 41	4 29 16	6 14 23	4 23 03	4 22 16
18	18	5	0 29 01	6 12 03	4 15 57	5 1 13	6 16 02	4 21r36	4 21 03
20	21	5	0 28 58	6 12 26	4 17 13	5 3 10	6 17 37	4 20 39	4 20 24
22	23	5	0 28 54	6 12 49	4 18 29	5 5 07	6 19 09	4D20 19	4 20 24
24	25	6	0 28 50	6 13 13	4 19 45	5 7 05	6 20 38	4 20 39	4 21 03
26	26	5	0 28 46	6 13 36	4 21 02	5 9 02	6 22 03	4 21 37	4 22 20
28	28	5	0 28 41	6 14 00	4 22 18	5 11 00	6 23 24	4 23 11	4 24 10
30	30	5	0 28 36	6 14 24	4 23 34	5 12 58	6 24 40	4 25 15	4 26 28
Oct. 2	2	6	0 28 31	6 14 49	4 24 50	5 14 56	6 25 52	4 27 46	4 29 09
4	4	6	0 28 25	6 15 13	4 26 06	5 16 54	6 26 58	5 0 36	5 2 07
6	6	6	0 28 19	6 15 38	4 27 23	5 18 53	6 27 59	5 3 42	5 5 19
8	8	6	0 28 12	6 16 03	4 28 39	5 20 51	6 28 53	5 6 58	5 8 38
10	10	6	0 28 06	6 16 28	4 29 55	5 22 49	6 29 41	5 10 20	5 12 03
12	12	6	0 27 59	6 16 53	5 1 11	5 24 48	7 0 22	5 13 47	5 15s31
14	15	6	0 27 51	6 17 18	5 2 27	5 26 47	7 0 56	5 17 15	5 18 59
16	17	6	0 27 43	6 17 44	5 3 43	5 28 46	7 1 21	5 20 44	5 22 28
18	19	6	0 27 35	6 18 10	5 4 59	6 0 45	7 1 38	5 24 12	5 25 55
20	21	6	0 27 27	6 18 35	5 6 16	6 2 44	7R1 45	5 27 38	5 29 21
22	23	6	0 27 19	6 19 01	5 7 32	6 4 43	7 1 44	6 1 03	6 2 45
24	25	6	0 27 10	6 19 27	5 8 48	6 6 43	7 1 33	6 4 26	6 6 07
26	27	6	0 27 01	6 19s53	5 10 04	6 8 42	7 1 12	6 7 47	6 9☌26
28	28	6	0 26 52	6 20 20	5 11 20	6 10 42	7 0 42	6 11 05	6 12 44
30	30	6	0 26 43	6 20 46	5 12 36	6 12 42	7 0 02	6 14 22	6 15 59
Nov. 1	2	7	0 26 33	6 21 12	5 13 53	6 14 42	6 29s14	6 17 36	6 19 13
3	4	7	0 26 24	6 21 38	5 15 09	6 16 42	6 28 18	6 20 49	6 22 25
5	6	7	0 26 14	6 22 05	5 16 25	6 18 42	6 27 15	6 24 00	6 25 35
7	9	7	0 26 05	6 22 31	5 17 41	6 20 43	6 26 07	6 27 09	6 28 43
9	11	7	0 25 55	6 22☌58	5 18 57	6 22 43	6 24 56	7 0 17	7 1 50
11	13	7	0 25☍45	6 23 24	5 20 14	6 24 44	6 23☌43	7 3 23	7 4 56
13	15	7	0 25 35	6 23 51	5 21 30	6 26 44	6 22 30	7 6 28	7 8 00
15	17	7	0 25 26	6 24 17	5 22 46	6 28 45	6 21r20	7 9 32	7 11 03

1970 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I S.T.						
		♄ श नि	बृ ♃ ह	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	17 7	0R25 26	6 24s17	5 22 46	6 28 45	6R21 20	7 9s32	7 11 03
17	19 7	0 25 16	6 24 43	5 24 02	7 0 46	6 20 14	7 12 34	7 14 05
19	21 7	0 25 06	6 25 10	5 25 18	7 2 47	6 19 14	7 15r36	7 17 06
21	23 7	0 24 57	6 25r36	5 26 35	7 4 48	6 18 22	7 18 36	7 20 06
23	25 7	0 24 47	6 26 02	5 27 51	7 6 50	6 17 38	7 21 35	7 23 04
25	27 7	0 24 38	6 26 29	5 29 07	7 8 51	6 17 04	7 24 33	7 26 01
27	29 7	0 24 29	6 26 55	6 0 23	7 10 52	6 16 39	7 27 28	7 28 55
29	1 8	0 24 19	6 27 21	6 1 40	7 12 54	6 16 25	8 0 22	8 1 47
Dec. 1	3 8	0 24 11	6 27 47	6 2 56	7 14 55	6D16 20	8 3 12	8 4 35
3	5 8	0 24 02	6 28 13	6 4 12	7 16 57	6 16 24	8 5 58	8 7 19
5	7 8	0 23 53	6 28 38	6 5 28	7 18 59	6 16 39	8 8 39	8 9 56
7	9 8	0 23 45	6 29 04	6 6 45	7 21 01	6 17 02	8 11 12	8 12 25
9	11 8	0 23 37	6 29 29	6 8 01	7 23 03	6 17 33	8 13 36	8 14 43
11	14 8	0 23 30	6 29 55	6 9 17	7 25 05	6 18 13	8 15 47	8 16 46
13	16 8	0 23 22	7 0 20	6 10 33	7 27 06	6 19 00	8 17 40	8 18 29
15	18 8	0 23 15	7 0 45	6 11 49	7 29 08	6 19 55	8 19 11	8 19 46
17	19 8	0 23 09	7 1 09	6 13 05	8 1 11	6 20 56	8 20 12	8 20 30
19	21 8	0 23 02	7 1 34	6 14 22	8 3 13	6 22 03	8R20 35	8 20 35
21	23 8	0 22 56	7 1 58	6 15 38	8 5 15	6 23 16	8 20 21	8 19 56
23	25 8	0 22 50	7 2 22	6 16 54	8 7 17	6 24 34	8 19s18	8 18 29
25	27 8	0 22 45	7 2 46	6 18 10	8 9 19	6 25 57	8 17 30	8 16 22
27	29 8	0 22 40	7 3 10	6 19 26	8 11 22	6 27 25	8 15 06	8 13s46
29	1 9	0 22 36	7 3 33	6 20 42	8 13 24	6 28 56	8 12 24	8 11 03
31	3 9	0 22 32	7 3 56	6 21 58	8 15 26	7 0 31	8 9 45	8 8 43
Jan. 2	6 9	0 22 28	7 4 19	6 23 14	8 17 29	7 2 10	8 7r28	8 6 32

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	10 20 33	10 21 51	5 R15 17	7 6 27	5 R 3 57	23 26 21
February 1	10 18 39	10 20 12	5 15 11	7 7 12	5 3 40	23 26 26
March 1	10 18 28	10 18 43	5 14 25	7 R 7 27	5 3 3	23 26 30
April 1	10 18 20	10 17 05	5 13 8	7 7 14	5 2 13	23 26 34
May 1	10 16 44	10 15 29	5 11 57	7 6 37	5 1 33	23 26 38
June 1	10 13 36	10 13 51	5 11 16	7 5 47	5 1 14	23 26 43
July 1	10 10 46	10 12 15	5D11 22	7 5 5	5D 1 24	23 26 49
August 1	10 9 27	10 10 37	5 12 15	7 4 42	5 2 3	23 26 54
September 1	10 9 25	10 8 58	5 13 47	7D 4 48	5 3 3	23 26 58
October 1	10 9 5	10 7 23	5 15 37	7 5 23	5 4 9	23 27 1
November 1	10 7 0	10 5 44	5 17 32	7 6 21	5 5 13	23 27 5
December 1	10 3 36	10 4 09	5 19 3	7 7 27	5 5 58	23 27 10
January 1	10 0 51	10 2 30	5 19 58	7 8 32	5R 6 15	23 27 17

Combustion or Heliacal Setting of Planets.

Saturn : From Apr. 18 to May 24.

Jupiter : From Oct. 26 to Nov. 20.

Mars : From June 12 to Sept. 14.

Venus : Upto Feb. 18 then form Nov. 2 to Nov. 14.

Mercury : From Jan. 8 to Jan. 18, Mar. 3 to Apr. 2, May 1 to May 21. June 27 to July 17, Aug. 31 to Sept. 18, Oct. 13 to Nov. 19, Dec. 23 to Jan. 2 ('71).

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date		h	m	Long. s	°	′	Date		h	m	Long. s	°	′
Mercury	Jan.	4,	13	32	9	6	33	Jan.	24,	22	20	8	20	26
	Apr.	28,	16	24	0	29	2	May	22,	12	15	0	19	46
	Aug.	30,	12	51	5	4	33	Sept.	22,	5	45	4	20	19
	Dec.	19,	11	16	8	20	38	'71Jan.	8,	10	21	8	4	22
Venus	Oct.	20,	21	25	7	1	46	Dec.	1,	5	37	6	16	20
Mars	—		—			—		—		—			—	
Jupiter	Feb.	19,	27	28	6	12	32	June	23,	15	15	6	2	37
Saturn	—		—			—		Jan.	3,	26	40	0	8	37
	Sept.	4,	19	40	0	29	10	—		—			—	
Uranus	Jan.	13,	12	15	5	15	21	June	12,	14	53	5	11	13
Neptune	Mar.	3,	13	37	7	7	27	Aug.	10,	7	46	7	4	40
Pluto	—		—			—		June	5,	8	49	5	1	14

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	7	26	6	Pauṣa	Sukla	Jan.	22	18	25	Māgha	Vadi
Feb.	6	12	43	Māgha	,,	Feb.	21	13	49	Phālguna	,,
Mar.	7	23	13	Phālguna	,,	Mar.	23	7	23	Caitra	,,
Apr.	6	9	39	Caitra	,,	Apr.	21	21	51	Vaiśakha	,,
May	5	20	21	Vaiśākha	,,	May	21	9	8	Jyaiṣṭha	,,
June	4	7	51	Jyaiṣṭha	,,	June	19	17	58	Āṣāḍha	,,
July	3	20	48	Āṣāḍha	,,	July	18	25	29	Śrāvaṇa	,,
Aug.	2	11	28	Śrāvaṇa	,,	Aug.	17	8	45	Bhādra	,,
Aug.	31	27	31	Bhādra	,,	Sept.	15	16	40	Āśvina	,,
Sept.	30	20	2	Āśvina	,,	Oct.	14	25	51	Kārtika	,,
Oct.	30	11	58	Kārtika	,,	Nov.	13	12	58	Agrahā	,,
Nov.	28	26	44	Agrahā	,,	Dec.	12	26	33	Pauṣa	,,
Dec.	28	16	13	Pauṣa	,,			—			

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	6	15	Karkaṭa	on	July	16	15	17
Kumbha	on	Feb.	12	19	17	Siṁha	on	Aug.	16	23	41
Mīna	on	Mar.	14	10	14	Kanyā	on	Sept.	16	23	35
Meṣa	on	Apr.	13	24	48	Tulā	on	Oct.	17	11	28
Vṛṣa	on	May	14	26	33	Vṛścika	on	Nov.	16	11	11
Mithuna	on	June	14	28	23	Dhanus	on	Dec.	15	25	46

1971 A.D. Longitude of Moon CONDENSED

Saka era 1892-93, Saṁvat 2027-28 (Mar. 27, Oct. 20), B. S. 1377-78 (Apr. 15).
Kollam era 1146-47 (Aug. 17), 45 Virodhakrit (Mar. 27, April 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec. 27	11	9	7	22	38	8	6	32	8	20	43	9	5	6	9	19	35	10	4	4	10	18	28
Jan. 3	18	9	11	2	45	11	16	51	0	0	48	0	14	32	0	28	6	1	11	27	1	24	36
10	25	9	2	7	32	2	20	15	3	2	44	3	15	1	3	27	6	4	9	3	4	20	53
17	3	10	5	2	40	5	14	29	5	26	25	6	8	33	6	20	57	7	3	42	7	16	51
24	10	10	8	0	26	8	14	27	8	28	51	9	13	33	9	28	26	10	13	22	10	28	13
31	17	10	11	12	52	11	27	15	0	11	18	0	25	2	1	8	26	1	21	32	2	4	22
Feb. 7	21	10	2	16	58	2	29	21	3	11	34	3	23	37	4	5	34	4	17	26	4	29	15
14	1	11	5	11	3	5	22	54	6	4	52	6	16	59	6	29	20	7	11	59	7	25	1
21	8	11	8	8	28	8	22	22	9	6	43	9	21	27	10	6	29	10	21	41	11	6	52
28	15	11	11	21	53	0	6	36	0	20	56	1	4	49	1	18	17	2	1	20	2	14	1
Mar. 7	22	11	2	26	25	3	8	36	3	20	37	4	2	30	4	14	21	4	26	9	5	7	59
14	29	11	5	19	50	6	1	47	6	13	50	6	26	2	7	8	25	7	21	4	8	4	1
21	7	12	8	17	19	9	1	1	9	15	8	9	29	41	10	14	34	10	29	43	11	14	57
28	14	12	0	0	7	0	15	3	0	29	36	1	13	41	1	27	17	2	10	25	2	23	7
Apr. 4	21	12	3	5	29	3	17	35	3	29	30	4	11	20	4	23	7	5	4	55	5	16	48
11	28	12	5	28	46	6	10	51	6	23	5	7	5	29	7	18	3	8	0	49	8	13	49
18	4	1	8	27	5	9	10	40	9	24	36	10	8	52	10	23	28	11	8	19	11	23	20
25	11	1	0	8	21	0	23	12	1	7	45	1	21	54	2	5	35	2	18	47	3	1	33
May 2	18	1	3	13	57	3	26	5	4	8	0	4	19	49	5	1	37	5	13	28	5	25	25
9	25	1	6	7	32	6	19	48	7	2	17	7	14	56	7	27	47	8	10	50	8	24	3
16	1	2	9	7	29	9	21	8	10	5	0	10	19	6	11	3	25	11	17	56	0	2	34
23	8	2	0	17	12	1	1	44	1	16	2	2	0	1	2	13	36	2	26	47	3	9	33
30	15	2	3	21	59	4	4	8	4	16	6	4	27	57	5	9	47	5	21	40	6	3	42
June 6	22	2	6	15	56	6	28	23	7	11	5	7	24	2	8	7	14	8	20	38	9	4	14
13	29	2	9	17	59	10	1	52	10	15	53	10	29	59	11	14	11	11	28	26	0	12	41
20	5	3	0	26	54	1	10	59	1	24	53	2	8	31	2	21	50	3	4	50	3	17	30
27	12	3	3	29	53	4	12	2	4	24	0	5	5	52	5	17	43	5	29	38	6	11	42
July 4	19	3	6	24	0	7	6	33	7	19	25	8	2	30	8	16	6	8	29	53	9	13	44
11	26	3	9	28	4	10	12	21	10	26	41	11	10	59	11	25	14	0	9	22	0	23	23
18	1	4	1	7	14	1	20	54	2	4	21	2	17	34	3	0	32	3	13	15	3	25	43
25	8	4	4	7	59	4	20	3	5	1	59	5	13	51	5	25	42	6	7	37	6	19	41
Aug. 1	15	4	7	1	57	7	14	31	7	27	26	8	10	43	8	24	24	9	8	27	2	22	49
8	22	4	10	7	25	10	22	8	11	6	53	11	21	31	0	5	59	0	20	12	1	4	8
15	29	4	1	17	47	2	1	9	2	14	14	2	27	5	3	9	42	3	22	7	4	4	21
22	5	5	4	16	27	4	28	25	5	10	18	5	22	9	6	3	59	6	15	54	6	27	56
29	12	5	7	10	9	7	22	39	8	5	30	8	18	45	9	2	25	9	16	33	10	1	5
Sept. 5	19	5	10	15	58	11	1	2	11	16	10	0	1	11	0	15	58	1	0	24	1	14	26
12	26	5	1	28	2	2	11	16	2	24	8	3	6	44	3	19	5	4	1	16	4	13	18
19	2	6	4	25	15	5	7	8	5	18	59	6	0	50	6	12	42	6	24	38	7	6	41
26	9	6	7	18	53	8	1	20	8	14	5	8	27	11	9	10	44	9	24	45	10	9	13
Oct. 3	16	6	10	24	6	11	9	17	11	24	37	0	9	54	0	24	57	1	9	38	1	23	50
10	23	6	2	7	34	2	20	49	3	3	39	3	16	8	3	28	21	4	10	24	4	22	19
17	30	6	5	4	10	5	16	1	5	27	52	6	9	45	6	21	43	7	3	45	7	15	54
24	6	7	7	28	11	8	10	41	8	23	24	9	6	26	9	19	50	10	3	38	10	17	53
31	13	7	11	2	32	11	17	33	0	2	46	0	18	2	1	3	8	1	17	56	2	2	18
Nov. 7	20	7	2	16	9	2	29	31	3	12	26	3	24	57	4	7	10	4	19	11	5	1	4
14	27	7	5	12	54	5	24	44	6	6	37	6	18	36	7	0	42	7	12	55	7	25	17
21	4	8	8	7	47	8	20	28	9	3	21	9	16	28	9	29	51	10	13	32	10	27	34
28	11	8	11	11	55	11	26	34	0	11	25	0	26	21	1	11	13	1	25	51	2	10	10
Dec. 5	18	8	2	24	3	3	7	29	3	20	29	4	3	5	4	15	23	4	27	26	5	9	21
12	25	8	5	21	11	6	3	3	6	14	59	6	27	3	7	9	17	7	21	43	8	4	21
19	3	9	8	17	10	9	0	12	9	13	25	9	26	50	10	10	25	10	24	13	11	8	12
26	10	9	11	22	22	0	6	41	0	21	6	1	5	33	1	19	56	2	4	10	2	18	10
Jan 2	17	9	3	1	51	3	15	11	3	28	9	4	10	48	4	23	8	5	5	15	5	17	13

Ayanamsa on 1st Jan. : 23° 27′ 17″

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	4	9	0R22 30	7 4 08	6 22 36	8 16 28	7 1 20	8R 8s33	8 7r28
3	7	9	0 22 26	7 4 30	6 23 52	8 18 30	7 3 01	8 6 32	8 5 46
5	9	9	0 22 23	7 4 53	6 25 08	8 20 32	7 4 41	8 5 10	8 4 44
7	11	9	0 22 21	7 5 15	6 26 24	8 22 34	7 6 30	8 4 28	8D4 22
9	13	9	0 22 19	7 5 36	6 27 40	8 24 37	7 8 19	8 4 24	8 4 35
11	15	9	0 22 17	7 5 58	6 28 56	8 26 39	7 10 11	8 4 54	8 5 19
13	17	9	0 22 16	7 6 19	7 0 12	8 28 41	7 12 04	8 5 51	8 6 29
15	19	9	0 22 15	7 6 39	7 1 27	9 0 43	7 14 00	8 7 12	8 7 59
17	20	9	0D22 15	7 6 59	7 2 43	9 2 46	7 15 58	8 8 50	8 9 45
19	22	9	0 22 15	7 7 19	7 3 59	9 4 48	7 17 58	8 10 44	8 11 45
21	24	9	0 22 15	7 7 38	7 5 15	9 6 50	7 19 59	8 12 50	8 13 56
23	26	9	0 22 16	7 7 57	7 6 30	9 8 52	7 22 02	8 15 05	8 16 16
25	28	9	0 22 18	7 8 16	7 7 46	9 10 54	7 24 06	8 17 29	8 18 44
27	1	10	0 22 20	7 8 34	7 9 01	9 12 56	7 26 12	8 20 00	8 21 17
29	3	10	0 22 22	7 8 52	7 10 17	9 14 58	7 28 19	8 22 36	8 23 56
31	5	10	0 22 25	7 9 09	7 11 32	9 17 00	8 0 27	8 25 17	8 26 40
Feb. 2	7	10	0 22 28	7 9 25	7 12 47	9 19 02	8 2 36	8 28 03	8 29 28
4	9	10	0 22 32	7 9 41	7 14 02	9 21 04	8 4 46	9 0 53	9 2 20
6	11	10	0 22 36	7 9 57	7 15 17	9 23 05	8 6 57	9 3 47	9 5 15
8	13	10	0 22 40	7 10 12	7 16 32	9 25 07	8 9 09	9 6 44	9 8 14
10	15	10	0 22 45	7 10 26	7 17 47	9 27 08	8 11 22	9 9 45	9 11 17
12	17	10	0 22 51	7 10 40	7 19 02	9 29 10	8 13 36	9 12 49	9 14 23
14	19	10	0 22 57	7 10 53	7 20 17	10 1 11	8 15 50	9 15s57	9 17 32
16	21	10	0 23 03	7 11 06	7 21 32	10 3 12	8 18 05	9 19 08	9 20 46
18	23	10	0 23 09	7 11 18	7 22 46	10 5 13	8 20 21	9 22 22	9 24 01
20	24	10	0 23 16	7 11 30	7 24 01	10 7 14	8 22 37	9 25 41	9 27 21
22	27	10	0 23 24	7 11 40	7 25 15	10 9 15	8 24 54	9 29 02	10 0 45
24	29	10	0 23 32	7 11 51	7 26 29	10 11 16	8 27 11	10 2 28	10 4 12
26	1	11	0 23 40	7 12 00	7 27 43	10 13 17	8 29 29	10 5 57	10 7 44
28	4	11	0 23 48	7 12 09	7 28 57	10 15 18	9 1 48	10 9 31	10 11 19
Mar. 2	6	11	0 23 57	7 12 17	8 0 11	10 17 18	9 4 06	10 13 08	10 14 59
4	8	1	0 24 06	7 12 25	8 1 24	10 19 18	9 6 26	10 16 50	10 18 42
6	10	11	0 24 16	7 12 32	8 2 38	10 21 19	9 8 45	10 20 36	10 22 30
8	12	11	0 24 26	7 12 38	8 3 51	10 23 19	9 11 05	10 24 25	10 26 21
10	14	11	0 24 36	7 12 43	8 5 04	10 25 19	9 13 25	10 28 17	11 0 15
12	15	11	0 24 46	7 12 48	8 6 17	10 27 18	9 15 46	11 2 12	11 4 11
14	17	11	0 24 57	7 12 51	8 7 30	10 29 18	9 18 06	11 6 09	11 8 07
16	19	11	0 25 08	7 12 55	8 8 42	11 1 18	9 20 28	11 10 05	11 12r03
18	21	11	0 25 19	7 12 57	8 9 55	11 3 17	9 22 49	11 14 00	11 15 55
20	23	11	0 25 31	7 12 59	8 11 07	11 5 16	9 25 11	11 17 49	11 19 41
22	25	11	0 25 43	7R13 00	8 12 19	11 7 16	9 27 32	11 21 30	11 23 17
24	27	11	0 25 55	7 13 00	8 13 30	11 9 15	9 29 55	11 25 00	11 26 40
26	30	11	0 26 07	7 12 59	8 14 42	11 11 14	10 2 17	11 28 15	11 29 46
28	2	12	0 26 20	7 12 58	8 15 53	11 13 13	10 4 39	0 1 12	0 2 32
30	4	12	0 26 33	7 12 56	8 17 03	11 15 11	10 7 02	0 3 47	0 4 56
Apr 1	6	12	0 26 46	7 12 53	8 18 14	11 17 10	10 9 25	0 5 59	0 6 55
3	8	12	0 26 59	7 12 49	8 19 24	11 19 08	10 11 48	0 7 44	0 8 27
5	10	12	0 27 13	7 12 45	8 20 34	11 21 06	10 14 11	0 9 03	0 9 32
7	12	12	0 27 26	7 12 40	8 21 43	11 23 04	10 16 34	0 9 54	0 10 09
9	14	12	0 27 40	7 12 34	8 22 52	11 25 02	10 18 58	0R10 17	0 10 18
11	16	12	0 27 54	7 12 28	8 24 01	11 27 00	10 21 21	0 10 13	0 10s02
13	18	12	0 28 08	7 12 21	8 25 09	11 28 58	10 23 45	0 9 45	0 9 22
15	19	12	0 28 22	7 12 13	8 26 17	0 0 55	10 26 09	0 8 55	0 8 23
17	21	12	0 28 37	7 12 05	8 27 25	0 2 53	10 28 33	0 7 45	0 7 09

Ayanamsa on 1st Jan. : 23° 27′ 17″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.17	21	12	0	28	37	7	R12	05	8	27	25	0	2	53	10	28	33	0	R 7s	48	0	7	09
19	23	12	0	28	51	7	11	55	8	28	32	0	4	50	11	0	57	0	6	29	0	5	47
21	26	12	0	29	06	7	11	46	8	29	33	0	6	47	11	3	21	0	5	05	0	4	22
23	28	12	0	29	21	7	11	35	9	0	44	0	8	44	11	5	45	0	3	41	0	3	01
25	30	12	0	29	36	7	11	25	9	1	50	0	10	41	11	8	09	0	2	24	0	1	50
27	3	1	0	29	51	7	11	13	9	2	55	0	12	38	11	10	34	0	1	19	0	0	51
29	5	1	1	0	06	7	11	01	9	3	59	0	14	35	11	12	58	0	0	28	0	0	10
May 1	7	1	1	0	21	7	10	49	9	5	02	0	16	32	11	15	23	11	29r	56	11	29	46
3	9	1	1	0s	36	7	10	36	9	6	05	0	18	28	11	17	47	11	D29	42	11	29	42
5	10	1	1	0	52	7	10	23	9	7	07	0	20	24	11	20	12	11	29	47	11	29	57
7	12	1	1	1	07	7	10	09	9	8	09	0	22	21	11	22	37	0	0	12	0	0	31
9	14	1	1	1	23	7	9	55	9	9	09	0	24	17	11	25	01	0	0	54	0	1	22
11	16	1	1	1	38	7	9	41	9	10	09	0	26	13	11	27	26	0	1	54	0	2	29
13	18	1	1	1	54	7	9	26	9	11	08	0	28	08	11	29	51	0	3	09	0	3	53
15	20	1	1	2	09	7	9	11	9	12	07	1	0	04	0	2	16	0	4	40	0	5	30
17	22	1	1	2	25	7	8	56	9	13	04	1	2	00	0	4	41	0	6	24	0	7	21
19	24	1	1	2	40	7	8	41	9	14	00	1	3	55	0	7	06	0	8	22	0	9	25
21	27	1	1	2	56	7	8	26	9	14	55	1	5	51	0	9	31	0	10	31	0	11	40
23	29	1	1	3	11	7	8	11	9	15	49	1	7	46	0	11	57	0	12	52	0	14	07
25	1	2	1	3	27	7	7	55	9	16	42	1	9	42	0	14	22	0	15	24	0	16	44
27	3	2	1	3	42	7	7	40	9	17	33	1	11	37	0	16	47	0	18	07	0	19	32
29	5	2	1	3	57	7	7	25	9	18	23	1	13	32	0	19	12	0	21	00	0	22	30
31	7	2	1	4	13	7	7	10	9	19	12	1	15	27	0	21	38	0	24	03	0	25	38
June 2	9	2	1	4	28	7	6	55	9	19	59	1	17	22	0	24	03	0	27	16	0	28	56
4	11	2	1	4	43	7	6	40	9	20	45	1	19	17	0	26	29	1	0	38	1	2	24
6	13	2	1	4r	58	7	6	26	9	21	29	1	21	12	0	28	54	1	4	11	1	6	01
8	14	2	1	5	14	7	6	12	9	22	12	1	23	07	1	1	20	1	7	53	1	9	45
10	17	2	1	5	29	7	5	58	9	22	52	1	25	02	1	3	45	1	11s	45	1	13	44
12	19	2	1	5	43	7	5	44	9	23	31	1	26	56	1	6	11	1	15	45	1	17	45
14	21	2	1	5	58	7	5	31	9	24	08	1	28	51	1	8	37	1	19	53	1	22	00
16	23	2	1	6	13	7	5	18	9	24	43	2	0	45	1	11	03	1	24	08	1	26	17
18	25	2	1	6	27	7	5	06	9	25	16	2	2	40	1	13	29	1	28	28	2	0	39
20	27	2	1	6	42	7	4	54	9	25	47	2	4	35	1	15	55	2	2	50	2	5	02
22	30	2	1	6	56	7	4	43	9	26	15	2	6	29	1	18	21	2	7	14	2	9	25
24	2	3	1	7	10	7	4	32	9	26	41	2	8	24	1	20	47	2	11	36	2	13	45
26	4	3	1	7	24	7	4	22	9	27	04	2	10	18	1	23	13	2	15	54	2	18	02
28	6	3	1	7	38	7	4	12	9	27	24	2	12	13	1	25	39	2	20	08	2	22	12
30	7	3	1	7	52	7	4	03	9	27	42	2	14	07	1	28	06	2	24r	15	2	26	16
July 2	9	3	1	8	05	7	3	55	9	27	57	2	16	01	2	0	32	2	28	15	3	0	12
4	11	3	1	8	18	7	3	47	9	28	10	2	17	56	2	2	58	3	2	07	3	4	00
6	13	3	1	8	31	7	3	40	9	28	19	2	19	50	2	5	25	3	5	52	3	7	41
8	15	3	1	8	44	7	3	34	9	28	26	2	21	45	2	7	52	3	9	28	3	11	13
10	17	3	1	8	57	7	3	28	9	R28	29	2	23	39	2	10	18	3	12	56	3	14	37
12	19	3	1	9	09	7	3	23	9	28	29	2	25	33	2	12	45	3	16	17	3	17	54
14	22	3	1	9	22	7	3	19	9	28	27	2	27	28	2	15	12	3	19	29	3	21	02
16	24	3	1	9	34	7	3	15	9	28	21	2	29	22	2	17	39	3	22	33	3	24	02
18	26	3	1	9	45	7	3	12	9	28	12	3	1	17	2	20	06	3	25	29	3	26	53
20	28	3	1	9	57	7	3	10	9	28	00	3	3	11	2	22	33	3	28	16	3	29	37
22	30	3	1	10	08	7	3	09	9	27	45	3	5	06	2	25	00	4	0	55	4	2	11
24	2	4	1	10	19	7	D3	08	9	27	28	3	7	00	2	27	27	4	3	25	4	4	36
26	4	4	1	10	29	7	3	08	9	27	07	3	8	55	2	29	55	4	5	45	4	6	51
28	6	4	1	10	40	7	3	09	9	26	45	3	10	50	3	2	22	4	7	55	4	8	56
30	8	4	1	10	50	7	3	10	9	26	20	3	12	44	3	4	50	4	9	54	4	10	49
Aug. 1	9	4	1	11	00	7	3	13	9	25	53	3	14	39	3	7	18	4	11	41	4	12	30

Ayanamsa on 1st Jan. : 23° 27′ 17″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		शा ♄ श	गु ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	9	4	1 11 00	7 3 13	9R25 53	3 14 39	3 7 18	4 11 41	4 12 30
3	11	4	1 11 09	7 3 16	9 25 25	3 16 34	3 9 45	4 13 16	4 13 58
5	13	4	1 11 18	7 3 19	9 24 55	3 18 29	3 12s13	4 14 36	4 15 10
7	16	4	1 11 27	7 3 24	9 24 24	3 20 24	3 14 41	4 15 41	4 16 07
9	18	4	1 11 35	7 3 29	9 23 53	3 22 18	3 17 09	4 16 28	4 16 45
11	20	4	1 11 43	7 3 35	9 23 21	3 24 14	3 19 37	4 16 57	4R17 04
13	23	4	1 11 51	7 3 41	9 22 49	3 26 09	3 22 05	4 17 05	4 17s02
15	25	4	1 11 59	7 3 48	9 22 18	3 28 04	3 24 33	4 16 52	4 16 37
17	27	4	1 12 06	7 3 56	9 21 47	3 29 59	3 27 02	4 16 17	4 15 51
19	29	4	1 12 12	7 4 05	9 21 18	4 1 55	3 29 30	4 15 20	4 14 43
21	1	5	1 12 19	7 4 14	9 20 49	4 3 50	4 1 58	4 14 02	4 13 17
23	2	5	1 12 24	7 4 24	9 20 23	4 5 46	4 4 27	4 12 29	4 11 37
25	4	5	1 12 30	7 4 34	9 19 59	4 7 41	4 6 56	4 10 44	4 9⊙49
27	6	5	1 12 35	7 4 45	9 19 37	4 9 37	4 9⊙24	4 8 55	4 8 03
29	8	5	1 12 40	7 4 57	9 19 18	4 11 33	4 11 53	4 7 13	4 6 26
31	10	5	1 12 44	7 5 09	9 19 02	4 13 29	4 14 22	4 5 44	4 5 08
Sept. 2	12	5	1 12 48	7 5 22	9 18 48	4 15 25	4 16 51	4 4r38	4 4 15
4	14	5	1 12 51	7 5 36	9 18 38	4 17 21	4 19 19	4 4 01	4 D3 54
6	16	5	1 12 54	7 5 50	9 18 31	4 19 18	4 21 48	4 3 56	4 4 07
8	19	5	1 12 57	7 6 04	9 18 26	4 21 14	4 24 17	4 4 27	4 4 56
10	21	5	1 12 59	7 6 19	9D18 26	4 23 10	4 26 46	4 5 33	4 6 18
12	23	5	1 13 01	7 6 35	9 18 28	4 25 07	4 29 16	4 7 11	4 8 12
14	25	5	1 13 02	7 6 51	9 18 33	4 27 04	5 1 45	4 9 20	4 10 34
16	27	5	1 13 03	7 7 08	9 18 42	4 29 01	5 4 14	4 11 54	4 13 19
18	29	5	1R13 04	7 7 25	9 18 54	5 0 58	5 6 43	4 14 49	4 16 23
20	1	6	1 13 04	7 7 42	9 19 09	5 2 55	5 9 12	4 18 01	4 19 41
22	3	6	1 13 03	7 8 00	9 19 27	5 4 52	5 11 42	4 21 24	4 23 09
24	4	6	1 13 02	7 8 19	9 19 48	5 6 50	5 14r11	4 24 56	4 26 44
26	6	6	1 13 01	7 8 38	9 20 12	5 8 47	5 16 41	4 28s32	5 0 21
28	8	6	1 12 59	7 8 57	9 20 38	5 10 45	5 19 10	5 2 11	5 4 00
30	10	6	1 12 57	7 9 17	9 21 08	5 12 43	5 21 39	5 5 50	5 7 39
Oct. 2	13	6	1 12 55	7 9 37	9 21 40	5 14 41	5 24 09	5 9 27	5 11 16
4	15	6	1 12 52	7 9 58	9 22 14	5 16 39	5 26 38	5 13 03	5 14 50
6	17	6	1 12 48	7 10 19	9 22 51	5 18 37	5 29 08	5 16 37	5 18 23
8	20	6	1 12 44	7 10 40	9 23 30	5 20 35	6 1 37	5 20⊙08	5 21 52
10	22	6	1 12 40	7 11 02	9 24 11	5 22 34	6 4 07	5 23 35	5 25 18
12	24	6	1 12 36	7 11 24	9 24 54	5 24 32	6 6 36	5 27 00	5 28 41
14	26	6	1 12 31	7 11 46	9 25 39	5 26 31	6 9 06	6 0 22	6 2 02
16	27	6	1 12 25	7 12 09	9 26 26	5 28 30	6 11 35	6 3 41	6 5 19
18	29	6	1 12 19	7 12 32	9 27 15	6 0 29	6 14 05	6 6 57	6 8 34
20	1	7	1 12 13	7 12 55	9 28 06	6 2 28	6 16 34	6 10 11	6 11 47
22	3	7	1 12 07	7 13 19	9 28 58	6 4 28	6 19 04	6 13 22	6 14 57
24	5	7	1 12 00	7 13 43	9 29 52	6 6 27	6 21 33	6 16 31	6 18 04
26	7	7	1 11 53	7 14 07	10 0 48	6 8 27	6 24 03	6 19 37	6 21 10
28	9	7	1 11 45	7 14 31	10 1 44	6 10 27	6 26 32	6 22 42	6 24 13
30	11	7	1 11 37	7 14 56	10 2 43	6 12 26	6 29 02	6 25 44	6 27r15
Nov. 1	13	7	1 11 29	7 15 21	10 3 42	6 14 26	7 1 31	6 28 45	7 0 14
3	16	7	1 11 21	7 15 46	10 4 43	6 16 26	7 4 01	7 1 43	7 3 11
5	18	7	1 11 13	7 16 11	10 5 44	6 18 27	7 6 30	7 4 39	7 6 07
7	20	7	1 11 04	7 16 37	10 6 47	6 20 27	7 9 00	7 7 33	7 9 00
9	22	7	1 10 55	7 17 02	10 7 51	6 22 27	7 11 29	7 10 25	7 11 50
11	24	7	1 10 46	7 17 28	10 8 56	6 24 28	7 13 59	7 13 14	7 14 37
13	26	7	1 10 36	7 17 54	10 10 01	6 26 29	7 16 28	7 16 00	7 17 21
15	28	7	1 10 27	7 18 20	10 11 08	6 28 29	7 18 58	7 18 42	7 20 01

1971 A.D. Longitudes of Planets CONDENSED

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	*Tithi & Month*		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	28	7	1R10 27	7 18 20	10 11 08	6 28 29	7 18 58	7 18 42	7 20 01
17	30	7	1 10 17	7 18 47	10 12 15	7 0 30	7 21 27	7 21 18	7 22 35
19	1	8	1 10 08	7 19 13	10 13 23	7 2 31	7 23 57	7 23 49	7 25 02
21	3	8	1 9 58	7 19 40	10 14 32	7 4 33	7 26 26	7 26 13	7 27 21
23	5	8	1 9 48	7 20 06	10 15 42	7 6 34	7 28 56	7 28 26	7 29 28
25	7	8	1 9☍38	7 20 33	10 16 52	7 8 35	8 1 25	8 0 26	8 1 20
27	9	8	1 9 28	7 21s00	10 18 03	7 10 37	8 3 54	8 2 09	8 2 54
29	12	8	1 9 19	7 21 27	10 19 15	7 12 38	8 6 24	8 3 32	8 4 03
Dec. 1	14	8	1 9 09	7 21 54	10 20 27	7 14 40	8 8 53	8 4 26	8 4 41
3	16	8	1 8 59	7 22 21	10 21 39	7 16 41	8 11 22	8R4 47	8 4 43
5	18	8	1 8 49	7 22 48	10 22 52	7 18 43	8 13 51	8 4 29	8 4 03
7	20	8	1 8 40	7 23 15	10 24 06	7 20 45	8 16 20	8 3s26	8 2 37
9	22	8	1 8 30	7 23☌42	10 25 20	7 22 47	8 18 49	8 1 39	8 0 31
11	24	8	1 8 21	7 24 09	10 26 34	7 24 48	8 21 18	7 29 16	7 27☌56
13	26	8	1 8 12	7 24 36	10 27 49	7 26 51	8 23 47	7 26 33	7 25 10
15	28	8	1 8 03	7 25 04	10 29 04	7 28 53	8 26 16	7 23 51	7 22 37
17	30	8	1 7 54	7 25 31	11 0 19	8 0 55	8 28 45	7 21r31	7 20 34
19	2	9	1 7 46	7 25 58	11 1 35	8 2 57	9 1 14	7 19 47	7 19 12
21	4	9	1 7 37	7 26r25	11 2 51	8 4 59	9 3 43	7 18 47	7D18 33
23	6	9	1 7 29	7 26 52	11 4 08	8 7 01	9 6 12	7 18 30	7 18 36
25	8	9	1 7 22	7 27 19	11 5 24	8 9 04	9 8 40	7 18 50	7 19 13
27	10	9	1 7 14	7 27 46	11 6 41	8 11 06	9 11 09	7 19 43	7 20 20
29	12	9	1 7 07	7 28 13	11 7 58	8 13 08	9 13 37	7 21 03	7 21 50
31	15	9	1 7 01	7 28 39	11 9 16	8 15 10	9 16 05	7 22 43	7 23 39
Jan. 2	17	9	1 6 54	7 29 06	11 10 33	8 17 13	9 18 33	7 24 39	7 25 43

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	10 0 51	10 2 30	5R19 58	7 8 32	5R 6 15	23 27 17
February	1	10 0 05	10 0 52	5 20 01	7 9 19	5 6 00	23 27 22
March	1	10 0 09	9 29 23	5 19 21	7R 9 37	5 5 24	23 27 26
April	1	9 29 12	9 27 44	5 18 07	7 9 26	5 4 35	23 27 29
May	1	9 26 34	9 26 09	5 16 53	7 8 50	5 3 53	23 27 33
June	1	9 23 17	9 24 30	5 16 06	7 8 01	5 3 32	23 27 38
July	1	9 21 22	9 22 55	5D16 03	7 7 18	5D 3 40	23 27 43
August	1	9 20 59	9 21 16	5 16 49	7D 6 53	5 4 17	23 27 49
September	1	9 20 58	9 19 35	5 18 16	7 6 57	5 5 16	23 27 53
October	1	9 19 44	9 18 02	5 20 03	7 7 29	5 6 22	23 27 56
November	1	9 16 38	9 16 24	5 21 59	7 8 26	5 7 28	23 28 00
December	1	9 13 26	9 14 48	5 23 35	7 9 32	5 8 14	23 28 05
January	1	9 11 51	9 13 10	5 24 37	7 10 38	5R 8 34	23 28 11

Combustion or Heliacal Setting of Planets

Saturn	:	From May 2 to June 6.
Jupiter	:	From Nov. 27 to Dec. 21.
Mars	:	— —
Venus	:	From Aug. 6 to Sept. 24.
Mercury	:	Upto Jan. 2, then from Feb. 14 to Mar. 17, Apr. 12 to May 1, June 10 to June 30, Aug. 14 to Sept. 2, Sept. 26 to Oct. 31, Dec. 7 to Dec. 17.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	'			h	m	s	°	'
Mercury	—		—			—		Jan.	8,	10	21	8	4	22
	Apr.	9,	22	48	0	10	18	May	3,	15	55	11	29	42
	Aug.	12,	24	38	4	17	5	Sept.	5,	11	28	4	3	54
	Dec.	3,	7	46	8	4	47	Dec.	22,	26	34	7	18	30
Venus	—		—			—		—		—			—	
Mars	July	11,	12	3	9	28	30	Sept.	9,	19	23	9	18	26
Jupiter	Mar.	23,	17	4	7	13	0	July	24,	24	37	7	3	8
Saturn	—		—			—		Jan.	17,	18	32	0	22	15
	Sept.	19,	7	40	1	13	4	—		—			—	
Uranus	Jan.	18,	12	42	5	20	6	June	17,	19	47	5	15	58
Neptune	Mar.	5,	23	26	7	9	37	Aug.	12,	20	41	7	6	50
Pluto	Jan.	1,	29	13	5	6	15	June	7,	21	13	5	3	31

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
						Jan.	11	18	50	Māgha	Vadi
Jan.	26	28	25	Māgha	Sukla	Feb.	10	13	11	Phālguna	,,
Feb.	25	15	19	Phālguna	,,	Mar.	12	8	04	Caitra	,,
Mar.	26	24	54	Caitra	,,	Apr.	10	25	40	Vaiśākha	,,
Apr.	25	9	32	Vaiśākha	,,	May	10	16	54	Jyaiṣṭha	,,
May	24	18	02	Jyaiṣṭha	,,	June	9	5	34	Āṣāḍha	,,
June	22	27	27	Āṣāḍha	,,	July	8	16	07	Śrāvaṇa	,,
July	22	14	45	Śrāvaṇa	,,	Aug.	6	25	12	Bhādra	,,
Aug.	20	28	23	Bhādra	,,	Sept.	5	9	33	Āśvina	,,
Sept.	19	20	12	Āśvina	,,	Oct.	4	17	50	Kārtika	,,
Oct.	19	13	29	Kārtika	,,	Nov.	2	26	50	Margā	,,
Nov.	18	7	16	Agrahā	,,	Dec.	2	13	18	Pauṣa	,,
Dec.	17	24	33	Pauṣa	,,	Dec.	31	25	50	Magha	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	12	27	Karkaṭa	on	July	16	21	24
Kumbha	on	Feb.	12	25	25	Siṁha	on	Aug.	17	5	51
Mīna	on	Mar.	14	22	19	Kanyā	on	Sept.	17	5	47
Meṣa	on	Apr.	14	6	52	Tulā	on	Oct.	17	17	43
Vṛṣa	on	May	14	27	47	Vṛścika	on	Nov.	16	17	26
Mithuna	on	June	15	10	28	Dhanus	on	Dec.	16	8	00

SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time		
	JAN.		
	h	*m*	*s*
1	18	41	48
2	18	45	45
3	18	49	42
4	18	53	38
5	18	57	35
6	19	1	31
7	19	5	28
8	19	9	24
9	19	13	21
10	19	17	18
11	19	21	14
12	19	25	11
13	19	29	7
14	19	33	4
15	19	37	0
16	19	40	57
17	19	44	53
18	19	48	50
19	19	52	47
20	19	56	43
21	20	0	40
22	20	4	36
23	20	8	33
24	20	12	29
25	20	16	26
26	20	20	22
27	20	24	19
28	20	28	16
29	20	32	12
30	20	36	9
31	20	40	5
	FEB.		
1	20	44	2
2	20	47	58
3	20	51	55
4	20	55	51
5	20	59	48
6	21	3	45
7	21	7	41
8	21	11	38
9	21	15	34
10	21	19	31
11	21	23	27
12	21	27	24
13	21	31	20
14	21	35	17
15	21	39	14

Date	Sid. Time		
	FEB.		
	h	*m*	*s*
16	21	43	10
17	21	47	7
18	21	51	3
19	21	55	0
20	21	58	56
21	22	2	53
22	22	6	49
23	22	10	46
24	22	14	43
25	22	18	39
26	22	22	36
27	22	26	32
28	22	30	29
29	22	34	25
	MAR.		
1	22	34	25
2	22	38	22
3	22	42	18
4	22	46	15
5	22	50	12
6	22	54	8
7	22	58	5
8	23	2	1
9	23	5	58
10	23	9	54
11	23	13	51
12	23	17	47
13	23	21	44
14	23	25	41
15	23	29	37
16	23	33	34
17	23	37	30
18	23	41	27
19	23	45	23
20	23	49	20
21	23	53	16
22	23	57	13
23	0	1	10
24	0	5	6
25	0	9	3
26	0	12	59
27	0	16	56
28	0	20	52
29	0	24	49
30	0	28	45
31	0	32	42

Date	Sid. Time		
	APRIL		
	h	*m*	*s*
1	0	36	39
2	0	40	35
3	0	44	32
4	0	48	28
5	0	52	25
6	0	56	21
7	1	0	18
8	1	4	14
9	1	8	11
10	1	12	8
11	1	16	4
12	1	20	1
13	1	23	57
14	1	27	54
15	1	31	50
16	1	35	47
17	1	39	43
18	1	43	40
19	1	47	37
20	1	51	33
21	1	55	30
22	1	59	26
23	2	3	23
24	2	7	19
25	2	11	16
26	2	15	12
27	2	19	9
28	2	23	6
29	2	27	2
30	2	30	59
	MAY		
1	2	34	55
2	2	38	52
3	2	42	48
4	2	46	45
5	2	50	41
6	2	54	38
7	2	58	35
8	3	2	31
9	3	6	28
10	3	10	24
11	3	14	21
12	3	18	17
13	3	22	14
14	3	26	10
15	3	30	7
16	3	34	4

Date	Sid. Time		
	MAY		
	h	*m*	*s*
17	3	38	0
18	3	41	56
19	3	45	53
20	3	49	50
21	3	53	46
22	3	57	43
23	4	1	39
24	4	5	36
25	4	9	33
26	4	13	29
27	4	17	26
28	4	21	22
29	4	25	19
30	4	29	15
31	4	33	12
	JUNE		
1	4	37	8
2	4	41	5
3	4	45	2
4	4	48	58
5	4	52	55
6	4	56	51
7	5	0	48
8	5	4	44
9	5	8	41
10	5	12	37
11	5	16	34
12	5	20	31
13	5	24	27
14	5	28	24
15	5	32	20
16	5	36	17
17	5	40	13
18	5	44	10
19	5	48	6
20	5	52	3
21	5	56	0
22	5	59	56
23	6	3	53
24	6	7	49
25	6	11	46
26	6	15	42
27	6	19	39
28	6	23	35
29	6	27	32
30	6	31	29

Date	Sid. Time		
	JULY		
	h	*m*	*s*
1	6	35	25
2	6	39	22
3	6	43	18
4	6	47	15
5	6	51	11
6	6	55	8
7	6	59	4
8	7	3	1
9	7	6	58
10	7	10	54
11	7	14	51
12	7	18	47
13	7	22	44
14	7	26	40
15	7	30	37
16	7	34	33
17	7	38	30
18	7	42	27
19	7	46	23
20	7	50	20
21	7	54	16
22	7	58	13
23	8	2	9
24	8	6	6
25	8	10	2
26	8	13	59
27	8	17	56
28	8	21	52
29	8	25	49
30	8	29	45
31	8	33	42
	AUG.		
1	8	37	38
2	8	41	35
3	8	45	31
4	8	49	28
5	8	53	25
6	8	57	21
7	9	1	18
8	9	5	14
9	9	9	11
10	9	13	7
11	9	17	4
12	9	21	0
13	9	24	57
14	9	28	54
15	9	32	50

Sidereal Time : Table I—*contd.*

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	AUGUST		SEPT.		OCT.		NOV.		DEC.
	h m s		h m s		h m s		h m s		h m s
16	9 36 47	12	11 23 14	9	13 9 41	5	14 56 8	2	16 42 35
17	9 40 43	13	11 27 10	10	13 13 37	6	15 0 4	3	16 46 31
18	9 44 40	14	11 31 7	11	13 17 34	7	15 4 1	4	16 50 28
19	9 48 36	15	11 35 3	12	13 21 30	8	15 7 57	5	16 54 24
20	9 52 33	16	11 39 0	13	13 25 27	9	15 11 54	6	16 58 21
21	9 56 29	17	11 42 56	14	13 29 23	10	15 15 50	7	17 2 17
22	10 0 26	18	11 46 53	15	13 33 20	11	15 19 47	8	17 6 14
23	10 4 23	19	11 50 50	16	13 37 16	12	15 23 43	9	17 10 10
24	10 8 19	20	11 54 46	17	13 41 13	13	15 27 40	10	17 14 7
25	10 12 16	21	11 58 43	18	13 45 10	14	15 31 37	11	17 18 4
26	10 16 12	22	12 2 39	19	13 49 6	15	15 35 33	12	17 22 0
27	10 20 9	23	12 6 36	20	13 53 3	16	15 39 30	13	17 25 57
28	10 24 5	24	12 10 32	21	13 56 59	17	15 43 26	14	17 29 53
29	10 28 2	25	12 14 29	22	14 0 56	18	15 47 23	15	17 33 50
30	10 31 58	26	12 18 25	23	14 4 52	19	15 51 19	16	17 37 46
31	10 35 55	27	12 22 22	24	14 8 49	20	15 55 16	17	17 41 43
	SEPT.	28	12 26 19	25	14 12 45	21	15 59 12	18	17 45 39
1	10 39 52	29	12 30 15	26	14 16 42	22	16 3 9	19	17 49 36
2	10 43 48	30	12 34 12	27	14 20 39	23	16 7 6	20	17 53 33
3	10 47 45		OCT.	28	14 24 35	24	16 11 2	21	17 57 29
4	10 51 41	1	12 38 8	29	14 28 32	25	16 14 59	22	18 1 26
5	10 55 38	2	12 42 5	30	14 32 28	26	16 18 55	23	18 5 22
6	10 59 34	3	12 46 1	31	14 36 25	27	16 22 52	24	18 9 19
7	11 3 31	4	12 49 58		NOV.	28	16 26 48	25	18 13 15
8	11 7 27	5	12 53 54	1	14 40 21	29	16 30 45	26	18 17 12
9	11 11 24	6	12 57 51	2	14 44 18	30	16 34 41	27	18 21 8
10	11 15 21	7	13 1 48	3	14 48 14		DEC.	28	18 25 5
11	11 19 17	8	13 5 44	4	14 52 11	1	16 38 38	29	18 29 2
								30	18 32 58
								31	18 36 55

SIDEREAL TIME—TABLE II—Correction for years

(Correction to the result of Table I for the years 1961 to 1971)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Jan. & Feb.	+0 53	−0 4	−1 2	−1 59	+1 0	+0 3	−0 54	−1 51	+1 8	+0 10
Mar. to Dec.	+0 53	−0 4	−1 2	+1 58	+1 0	+0 3	−0 54	+2 5	+1 8	+0 10

1971 : −0*m* 47*s*

SIDEREAL TIME—TABLE III—Correction for places

Corrections for a few places are given below. For other places see the last page of Indian Ephemeris or the Tables of Ascendants.

Place	Correction	Place	Correction	Place	Correction
	m s		m s		m s
Allahabad	+0 0	Colombo	+0 2	Madras	+0 1
Bangalore	+0 2	Dacca	−0 5	New York	+1 43
Bangkok	−0 12	Delhi	+0 3	Rangoon	−0 9
Bombay	+0 6	Greenwich	+0 54	Islamabad	+0 6
Calcutta	−0 4	Kuala Lumpur	−0 13	Varanasi	−0 0

The time interval of the epoch from 12h noon Local Mean Time is now to be subtracted from (if before noon) or added (if after noon) to the Sidereal time obtained from the above tables for 12h noon of the date and place in question. Before doing so the time interval is to be increased by 10 secs. per hour and then subtracted or added.

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1961										
January	0° N07′	21° S54′	0° S05′	22° S47′	3° N42′	26° N54′	1° S39′	14° S39′	1° S33′	24° S47′
February	0 05	21 22	0 09	21 54	3 37	27 04	0 N45	0 N16	0 S39	11 32
March	0 03	20 52	0 12	20 51	3 01	26 25	4 27	12 48	2 N58	9 57
April	0 N00	20 26	0 16	19 48	2 23	25 09	7 49	17 30	2 S16	7 S43
May	0 S02	20 14	0 21	19 04	1 54	22 32	2 N52	7 41	0 S22	14 N14
June	0 05	20 21	0 27	18 56	1 29	18 03	1 S57	8 17	1 N45	25 08
July	0 08	20 43	0 33	19 30	1 07	12 06	2 59	15 47	4 S40	18 44
August	0 10	21 11	0 38	20 28	0 46	4 N41	2 01	21 24	0 N23	21 41
September	0 13	21 33	0 40	21 11	0 26	3 S24	0 S16	19 16	0 N39	3 N08
October	0 15	21 41	0 40	21 20	0 N07	11 09	1 N08	9 N16	3 S03	15 S28
November	0 16	21 33	0 40	20 53	0 S11	18 09	1 34	5 S19	1 N37	7 11
December	0 S18	21 S10	0 S39	19 S51	0 S29	22 S46	0 N58	18 S01	0 N16	19 S54
1962										
January	0 S20	20 S32	0 S10	18 S15	0 S45	24 S05	0 S13	23 S37	2 S09	24 S12
February	0 22	19 46	0 41	16 12	0 58	21 16	1 13	18 10	2 N48	11 50
March	0 24	19 02	0 43	14 06	1 06	15 30	1 25	6 S08	0 N03	16 53
April	0 27	18 21	0 48	11 45	1 09	6 S48	0 S43	9 N30	2 S14	3 S33
May	0 31	17 57	0 53	9 45	1 04	2 N29	0 N33	21 20	1 N51	21 N04
June	0 35	17 57	1 01	8 19	0 52	11 27	1 41	24 41	1 S03	21 57
July	0 39	18 19	1 09	7 52	0 34	18 16	1 49	17 44	3 S16	19 34
August	0 42	18 56	1 18	8 31	0 S11	22 30	0 N31	3 N50	1 N45	19 N11
September	0 44	19 30	1 23	9 59	0 N18	23 36	2 S10	11 S24	1 S07	2 S16
October	0 45	19 47	1 22	11 16	0 50	22 09	5 14	22 40	3 S25	10 34
November	0 45	19 42	1 18	11 41	1 32	19 15	6 S02	25 08	1 N56	7 19
December	0 S45	19 S16	1 S12	10 S57	2 N26	16 N46	0 N23	15 S10	1 S08	23 S17
1963										
January	0 S46	18 S30	1 S07	9 S14	3 N38	16 N45	3 N52	15 S20	1 S34	21 S57
February	0 47	17 31	1 04	6 48	4 32	20 15	3 1[illegible]	20 08	2 N44	19 08
March	0 50	16 35	1 03	4 11	4 07	22 32	1 N21	19 38	1 S36	17 S08
April	0 53	15 39	1 04	1 S16	3 00	21 31	0 S39	11 S15	0 S58	3 N44
May	0 58	15 01	1 06	1 N27	2 06	18 17	1 39	1 N45	2 N41	22 34
June	1 03	14 49	1 11	3 51	1 23	13 10	1 29	15 07	3 S45	14 35
July	1 08	15 05	1 17	5 30	0 51	6 N47	0 S27	22 45	0 S33	22 46
August	1 13	15 45	1 26	6 15	0 N23	0 S49	0 N46	20 53	1 N15	14 N01
September	1 15	16 30	1 34	5 52	0 S01	8 46	1 24	9 N44	3 S20	4 S27
October	1 15	17 00	1 38	4 34	0 21	15 58	1 N05	5 S10	0 N21	3 N59
November	1 14	17 03	1 35	3 05	0 39	21 41	0 S01	18 52	0 N41	12 S38
December	1 S12	16 S39	1 S28	2 N27	0 S52	24 S16	1 S13	24 S39	2 S10	25 S22
1964										
January	1 S11	15 S49	1 S19	3 N03	1 S02	22 S54	1 S47	19 S25	1 N41	20 S36
February	1 12	14 42	1 11	4 44	1 05	17 27	1 S07	5 S44	0 N18	22 04
March	1 13	13 42	1 05	6 56	1 12	9 40	0 N34	9 N17	2 S09	13 S27
April	1 17	12 23	1 02	9 34	0 53	0 S01	2 47	22 09	1 N38	12 N26
May	1 22	11 32	1 00	12 05	0 38	9 N05	4 07	27 26	0 N00	13 09
June	1 28	11 06	1 00	14 24	0 S20	16 54	2 N13	25 29	3 S01	13 59
July	1 35	11 13	1 02	16 12	0 N00	21 54	3 S59	19 15	1 N36	24 20
August	1 41	11 50	1 05	17 29	0 23	23 49	4 58	18 27	0 S40	8 50
September	1 44	12 41	1 09	18 06	0 46	22 33	2 40	18 53	4 S09	3 35
October	1 43	13 23	1 13	18 00	1 10	18 59	0 S10	13 10	1 N53	3 N 9
November	1 41	13 38	1 15	17 15	1 37	13 57	1 N31	1 N06	0 S54	18 S14
December	1 S38	13 S19	1 S11	16 N16	2 N09	8 N58	1 N49	12 S15	2 S15	25 S42

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1965										
January	1° S35′	12° S30′	1° S03′	15° N42′	2° N50′	5° N03′	0° N57′	21° S45′	2° N43′	20° S18′
February	1 34	11 18	0 54	16 01	3 38	4 08	0 S23	21 35	1 S22	22 14
March	1 35	10 04	0 47	16 59	4 04	6 55	1 16	12 S48	1 S28	7 S28
April	1 38	8 44	0 41	18 27	3 20	10 31	1 22	2 N00	3N20	12N01
May	1 42	7 39	0 37	19 56	2 04	9 56	0 S35	15 52	2 S36	3 26
June	1 49	6 58	0 34	21 15	1 02	5 N51	0N38	23 55	1 S00	18 41
July	1 56	6 50	0 32	22 11	0 N19	0 S06	1 30	21 36	1N45	22 06
August	2 04	7 18	0 30	22 43	0 S14	7 18	1 26	10N00	3 S32	8 09
September	2 08	8 10	0 29	22 56	0 38	14 35	0N12	5 S40	0 S23	14 N21
October	2 09	9 01	0 29	22 58	0 56	20 33	1 S38	19 19	1N04	3 S05
November	2 05	9 31	0 28	22 59	1 07	24 11	3 10	26 30	2 S13	21 57
December	2 S01	9 S24	0 S25	23 N01	1 S12	24 S02	2 S56	24 S03	0 N31	21 S56
1966										
January	1 S56	8 S41	0 S21	22 N59	1 S10	19 S41	1N03	15 S48	0N46	22 S20
February	1 53	7 30	0 16	22 55	1 01	11 57	7 36	12 10	2 S03	20 15
March	1 53	6 13	0 11	23 00	0 48	3 S22	5 48	14 11	0N47	0 24
April	1 54	4 45	0 07	23 13	0 30	6 N19	1N41	11 45	0N57	1 S49
May	1 58	3 29	0 S03	23 23	0 S11	14 34	1 S03	2 S47	2 S47	3 N46
June	2 05	2 34	0 N00	23 20	0 N09	20 45	2 06	9N36	1N14	23 55
July	2 12	2 11	0 03	22 57	0 27	23 43	1 39	19 34	0N09	19 18
August	2 21	2 25	0 06	22 12	0 45	23 28	0 S21	22 32	4 S43	14 58
September	2 27	3 10	0 09	21 13	1 02	20 15	0N56	15 39	1N41	13N21
October	2 29	4 06	0 13	20 16	1 17	15 07	1 27	2 N24	0 S24	9 S09
November	2 26	4 49	0 18	19 36	1 32	8 42	0N59	12 S38	2 S55	23 16
December	2 S20	4 S57	0N23	19 N34	1N47	2N17	0 S07	22 S35	2N33	14 S54
1967										
January	2 S14	4 S25	0N29	20 N13	2 N03	3 S40	1 S12	22 S43	0 S49	24 S16
February	2 09	3 21	0 33	21 08	2 21	8 06	1 32	12 S22	1 S43	16 03
March	2 06	2 04	0 35	21 42	2 33	10 04	0 S54	1 N39	3 N37	2 07
April	2 07	0 S33	0 35	21 47	2 25	9 09	0N34	16 35	1 S37	8 S15
May	2 09	0 N49	0 35	21 22	1 26	6 12	2 02	25 02	1 S37	9N17
June	2 15	1 56	0 35	20 25	0N08	5 51	2 32	23 48	2N11	25 38
July	2 22	2 33	0 36	19 04	0 S43	9 15	1N03	14 41	3 S11	18 39
August	2 31	2 36	0 38	17 17	1 14	14 43	3 S29	3 31	1 S30	20 40
September	2 38	2 03	0 40	15 16	1 32	20 18	8 34	1 51	1 N25	7N18
October	2 42	1 09	0 44	13 18	1 38	24 08	4 S38	7 14	2 S03	13 S49
November	2 40	0 N18	0 49	11 34	1 35	24 52	0N01	3 N22	0 S46	15 20
December	2 S34	0 S05	0 N56	10 N31	1 S24	21 S40	2N10	6 S51	1 N15	17 S20
1968										
January	2 S26	0 N11	1 N04	10N26	1 S07	14 S46	2N15	17 S43	1 S52	24 S49
February	2 20	1 05	1 12	11 24	0 45	5 S37	1N00	22 18	0 N27	11 14
March	2 15	2 18	1 15	12 46	0 24	3N31	0 S27	17 37	1 N34	14 10
April	2 14	3 48	1 14	13 50	0 S02	12 28	1 25	5 S10	2 S24	6 S10
May	2 15	5 12	1 10	13 58	0N17	19 13	1 22	9N12	0N41	17 N47
June	2 19	6 25	1 05	13 08	0 34	23 18	0 S27	20 44	0 49	24 15
July	2 25	7 12	1 02	11 36	0 48	24 05	0N42	23 36	4 S28	18 49
August	2 34	7 29	1 00	9 27	1 00	21 45	1 26	16 05	1N17	21 04
September	2 42	7 11	1 00	6 58	1 09	16 53	1 11	1 N42	0 S04	0 N22
October	2 47	6 27	1 02	4 28	1 16	10 34	0 N03	13 S14	3 S35	15 S09
November	2 46	5 33	1 05	2 03	1 21	3 N15	1 S25	23 47	2N09	5 52
December	2 S41	4N59	1 N11	0N10	1 N24	3 S53	2 S15	24 S16	0 S24	21 S37

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LATITUDES AND DECLINATIONS

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli
1969										
January	2° S32′	5° N01′	1° N18′	0° S58′	1° N24′	10° S35′	1° S38′	14° S30′	2° S06′	23 S17
February	2 24	5 41	1 27	1 00	1 19	15 58	0 N55	0 N23	3 N38	15 15
March	2 19	6 42	1 33	0 S04	1 07	19 24	4 41	12 42	0 S51	17 25
April	2 15	8 04	1 35	1 N30	0 N38	21 44	7 54	16 20	1 S49	0 S28
May	2 14	9 26	1 31	2 38	0 S23	23 09	2 N37	6 34	2 N30	22 N42
June	2 17	10 40	1 24	2 47	2 02	23 57	1 S59	8 07	2 S42	18 43
July	2 21	11 33	1 17	1 53	3 12	23 43	2 57	15 53	2 S03	20 53
August	2 28	12 02	1 11	0 N06	3 23	24 31	1 57	21 28	1 N43	16 N52
September	2 36	11 59	1 08	2 S13	3 05	26 00	0 S13	19 11	2 S04	4 S01
October	2 42	11 29	1 06	4 42	2 36	25 54	1 N09	9 N03	1 S59	3 32
November	2 44	10 42	1 06	7 14	2 01	22 41	1 34	5 S34	1 N26	9 43
December	2 S40	10 N02	1 N08	9 S26	1 S25	16 S25	0 N56	18 S13	1 S40	24 S26
1970										
January	2 S31	9 N49	1 N13	11 S09	0 S49	7 S13	0 S16	23 S38	0 S31	20 S51
February	2 22	10 13	1 19	12 06	0 S17	1 N49	1 15	17 59	1 N34	20 50
March	2 15	11 00	1 25	12 09	0 N07	10 01	1 25	5 S51	1 S59	16 S00
April	2 10	12 10	1 29	11 19	0 28	17 N33	0 S41	9 N47	0 N01	7 N40
May	2 08	13 23	1 29	10 03	0 44	22 25	0 N36	21 30	2 N04	20 19
June	2 08	14 32	1 24	9 02	0 55	24 22	1 43	24 40	3 S45	13 14
July	2 11	15 25	1 16	8 56	1 03	23 10	1 49	17 34	0 N33	23 59
August	2 16	15 59	1 08	9 47	1 08	19 09	0 N27	3 N38	0 N36	11 N37
September	2 22	16 08	1 01	11 23	1 10	13 03	2 S18	11 S33	4 S13	3 S01
October	2 28	15 53	0 57	13 18	1 09	5 N56	5 27	22 38	1 N29	5 N22
November	2 31	15 19	0 54	15 23	1 06	1 S54	6 S02	24 16	0 N01	15 S05
December	2 S29	14 N43	0 N53	17 S13	0 N59	9 S16	0 N34	14 S12	2 S24	25 S48
1971										
January	2 S22	14 N21	0 N53	18 S46	0 N49	15 S52	3 N48	15 S17	3 N03	20 S23
February	2 13	14 29	0 55	19 49	0 32	20 43	3 07	20 14	0 S31	22 27
March	2 05	15 00	0 57	20 19	0 N09	23 06	1 N16	19 38	2 S03	11 S40
April	1 59	15 54	1 00	20 23	0 S28	23 24	0 S41	11 S06	2 N32	13 N39
May	1 55	16 53	1 01	20 00	1 24	21 50	1 39	1 N59	1 S18	7 53
June	1 53	17 50	0 59	19 18	2 49	19 36	1 27	15 20	2 S21	15 15
July	1 54	18 36	0 54	18 43	4 46	18 54	0 S25	22 50	1 N52	23 51
August	1 57	19 07	0 46	18 40	6 39	21 20	0 N48	20 46	1 S39	8 05
September	2 01	19 22	0 39	19 14	6 14	23 04	1 24	9 N28	2 S56	9 12
October	2 06	19 19	0 34	20 11	4 13	20 24	1 N04	5 S27	1 N43	1 N09
November	2 09	19 00	0 30	21 17	2 21	14 39	0 S04	19 05	1 S25	19 S42
December	2 S09	18 N35	0 N26	22 S12	1 S03	7 S18	1 S15	24 S41	1 S43	25 S09

Year	Uranus		Neptune		Pluto	
	Lat.	Decli	Lat.	Decli	Lat.	Decli
1961	0° N45′	13° N46′	1° N45′	13° S25′	12° N52′	20° N28′
1962	0 46	12 06	1 45	14 04	13 15	20 02
1963	0 47	10 22	1 44	14 42	13 37	19 34
1964	0 47	8 34	1 44	15 18	13 58	19 05
1965	0 47	6 43	1 44	15 54	14 20	18 34
1966	0 47	4 50	1 43	16 28	14 39	18 00
1967	0 47	2 56	1 42	17 01	14 59	17 25
1968	0 46	1 N01	1 41	17 32	15 16	16 49
1969	0 45	0 S54	1 40	18 02	15 33	16 11
1970	0 43	2 48	1 39	18 31	15 50	15 30
1971	0 N41	4 S40	1 N38	18 S58	16 N03	14 N48

SAYANA TRANSIT OF SUN

(Sun's entry into Tropical Signs or Sayana Rasis)

Time in I.S.T.

Sign	1961			1962			1963			1964		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	12·5	Jan.	20	18·5	Jan.	21	0·4	Jan.	21	6·2
Pisces	Feb.	19	2·8	Feb.	19	8·8	Feb.	19	14·7	Feb.	19	20·5
Aries	Mar.	21	2·0	Mar.	21	8·0	Mar.	21	13·8	Mar.	20	19·7
Taurus	Apr.	20	13·4	Apr.	20	19·4	Apr.	21	1·1	Apr.	20	7·0
Gemini	May	21	12·9	May	21	18·8	May	22	0·5	May	21	6·3
Cancer	June	21	21·0	June	22	2·9	June	22	8·6	June	21	14·5
Leo	July	23	7·9	July	23	13·8	July	23	19·5	July	23	1·4
Virgo	Aug.	23	14·8	Aug.	23	20·7	Aug.	24	2·5	Aug.	23	8·4
Libra	Sept.	23	12·2	Sept.	23	18·1	Sept.	23	23·9	Sept.	23	5·8
Scorpio	Oct.	23	21·3	Oct.	24	3·2	Oct.	24	9·0	Oct.	23	14·9
Sagittarius	Nov.	22	18·6	Nov.	23	0·5	Nov.	23	6·3	Nov.	22	12·2
Capricorn	Dec.	22	7·8	Dec.	22	13·8	Dec.	22	19·5	Dec.	22	1·3
	1965			1966			1967			1968		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	12·0	Jan.	20	17·8	Jan.	20	23·6	Jan.	21	5·4
Pisces	Feb.	19	2·3	Feb.	19	8·1	Feb.	19	13·9	Feb.	19	19·7
Aries	Mar.	21	1·6	Mar.	21	7·4	Mar.	21	13·1	Mar.	20	18·9
Taurus	Apr.	20	12·9	Apr.	20	18·7	Apr.	21	0·4	Apr.	20	6·2
Gemini	May	21	12·3	May	21	18·0	May	21	23·8	May	21	5·6
Cancer	June	21	20·4	June	22	2·1	June	22	7·9	June	21	13·7
Leo	July	23	7·3	July	23	12·9	July	23	18·8	July	23	0·6
Virgo	Aug.	23	14·2	Aug.	23	19·8	Aug.	24	1·7	Aug.	23	7·6
Libra	Sept.	23	11·6	Sept.	23	17·2	Sept.	23	23·1	Sept.	23	4·9
Scorpio	Oct.	23	20·7	Oct.	24	2·4	Oct.	24	8·2	Oct.	23	14·0
Sagittarius	Nov.	22	17·0	Nov.	22	23·7	Nov.	23	5·6	Nov.	22	11·3
Capricorn	Dec.	22	7·2	Dec.	22	13·0	Dec.	22	18·8	Dec.	22	0·5
	1969			1970			1971			1972		
		d	h		d	h		d	h		d	h
Aquarius	Jan.	20	11·2	Jan.	20	16·9	Jan.	20	22·7	Jan.	21	4·5
Pisces	Feb.	19	1·4	Feb.	19	7·2	Feb.	19	13·0	Feb.	19	18·7
Aries	Mar.	21	0·6	Mar.	21	6·4	Mar.	21	12·1	Mar.	20	17·9
Taurus	Apr.	19	12·0	Apr.	20	17·8	Apr.	20	23·4	Apr.	20	5·1
Gemini	May	21	11·3	May	21	17·1	May	21	22·8	May	21	4·5
Cancer	June	21	19·4	June	22	1·2	June	22	6·8	June	21	12·6
Leo	July	23	6·3	July	23	12·1	July	23	17·8	July	22	23·6
Virgo	Aug.	23	13·2	Aug.	23	19·1	Aug.	24	0·8	Aug.	23	6·6
Libra	Sept.	23	10·6	Sept.	23	16·5	Sept.	23	22·3	Sept.	23	4·1
Scorpio	Oct.	23	19·7	Oct.	24	1·6	Oct.	24	7·4	Oct.	23	13·2
Sagittarius	Nov.	22	17·0	Nov.	22	22·9	Nov.	23	4·7	Nov.	22	10·6
Capricorn	Dec.	22	6·2	Dec.	22	12·1	Dec.	22	17·9	Dec.	21	23·7

Example of Moon's latitude

Find the latitude of Moon at 5-30 A.M. on Aug. 1, 1963.

At the epoch Moon = 7s 22° 41′, Rahu = 2s 27° 8′. Moon – Rahu = 4s 25° 33′ = 145° 33′. Against this figure, the latitude is obtained from the table on page 82 as 2° 56′N approximately (actual value is 2° 59′ N)

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0'S	360°	45°	N3° 38'S	315°	90°	N5° 9'S	270°	135°	N3° 38'S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declination of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North ; if greater than 180° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.
0°	0° 0'	180°	23°	8° 57'	157°	46°	16° 39'	134°	69°	21° 49'	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	60	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, the true decli. = decli. of place + reduced lat.

If lat. is South, the true decli. = decli. of place − reduced lat.

When declination of Place is South—

If lat. is North, the true decli. = decli of place − reduced lat.

If lat. is South, the true decli. = decli of place + reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
0°	180°	180°	360°	0·917	50°	130°	230°	310°	0·963
10	170	190	350	0·920	60	120	240	300	0·978
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

EXAMPLE :—Find the declination of Moon on 1st Aug. 1963. N. long. of Moon on that date = 7s 22° 41′. *Ayanamsa* = 23° 21′. Therefore trop. long. = 8s 16° 2′ = 256° 2′. Now the *declination of place* is found to be 22° S 43′ and the *multiplier* is found from the above table as 0·993. The latitude of Moon on that date is 2°N59′ = 179′. This multiplied by 0·993 gives 178′ = 2°58′N. Here we get declination of place as south and the latitude as north. Hence the true declination = 22°S43′ − 2°58′ = 19°S45′ (This agrees with the actual value).

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ☉. If ☽ − ☉ is less than 12°, the 1st *tithi* of the light half *(Sukla paksha)* is then current. This *tithi* will remain current until ☽ − ☉ becomes exactly 12° degrees. So for other *tithis* also.

The following table shows the long. of ☽ − ☉ indicating the end of each *tithi*. If ☽ − ☉ is greater than 6 signs, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half *(Krishna paksha)* of the month.

☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Entrance of Planets into Nirayana Signs

MARS

Enters :—	*d m y*	*d m y*	*d m y*	*d m y*	*d m y*	*d m y*
Mesha		20 5 62	28 4 64	9 4 66	19 3 68	25 2 70
Vrisha		29 6 62	8 6 64	19 5 66	29 4 68	9 4 70
Mithuna		12 8 62	20 7 64	1 7 66	11 6 68	23 5 70
Karkata	22 4 61	29 9 62	4 9 64	15 8 66	26 6 68	8 7 70
”	—	10 1 63R	—	—	—	—
Simha	17 6 61	10 12 62	24 10 64	1 10 66	11 9 68	23 8 70
”	—	20 5 63	25 2 65R	—	—	—
Kanya	6 8 61	15 7 63	30 12 64	21 11 66	29 10 68	10 10 70
”	—	—	15 6 65	19 4 67R	—	—
Tulā	21 9 61	2 9 63	9 8 65	22 1 67	18 12 68	26 11 70
”	—	—	—	4 7 67	—	—
Vṛścika	4 11 61	16 10 63	24 9 65	30 8 67	11 2 69	12 1 71
Dhanus	15 12 61	26 11 63	5 11 65	14 10 67	10 9 69	1 3 71
Makara	24 1 62	4 1 64	14 12 65	23 11 67	26 10 69	21 4 71
Kumbha	3 3 62	11 2 64	21 1 66	31 12 67	6 12 69	24 10 71
Mina	11 4 62	20 3 64	1 3 66	8 2 68	16 1 70	16 12 71

JUPITER

Enters :—		
Makara	on	Feb. 10, 1961
Kumbha	”	Feb. 24, 1962
Mina	”	Mar. 7, 1963
Meṣa	”	Mar. 14, 1964
Vṛṣa	”	Aug. 3, 1964
Meṣa R	”	Oct. 26, 1964
Vṛṣa	”	Mar. 21, 1965
Mithuna	”	Aug. 5, 1965

Enters :—		
Vṛṣa R	on	Jan. 9, 1966
Mithuna	”	Mar. 23, 1966
Karkata	”	Aug. 21, 1966
Siṁha	”	Sept. 14, 1967
Kanya	”	Oct. 12, 1968
Tulā	”	Nov. 11, 1969
Vṛścika	”	Dec. 11, 1970
Dhanus	”	Jan. 6, 1972

SATURN

Enters :—		
Makara	on	Feb. 1, 1961
Dhanus R	”	Sept. 17, 1961
Makara	”	Oct. 7, 1961
Kumbha	”	Jan. 27, 1964
Mīna	”	Apr. 8, 1966
Kumbha R	”	Nov. 3, 1966

Enters :—		
Mīna	on	Dec. 19, 1966
Meṣa	”	June 17, 1968
Mīna R	”	Sept. 28, 1968
Meṣa	”	Mar. 7, 1969
Vṛṣa	”	Apr. 28, 1971

URANUS

Enters :—		
Karkata R	on	Feb. 23, 1961
Siṁha	on	July 1, 1961
Kanyā	on	Nov. 12, 1966

Enters :—		
Siṁha R	on	Feb. 17, 1967
Kanyā	”	Aug. 26, 1967

NEPTUNE

Enters :—		
Vṛścika	on	Dec. 27, 1966
Tulā R	on	Apr. 29, 1967

Enters :—		
Vṛścika	on	Oct. 30, 1967

PLUTO

Enters :—		
Kanyā	on	Oct. 6, 1968
Siṁha R	”	Mar. 28, 1969

Enters :—		
Kanyā	on	Aug. 6, 1969

RAHU (True)

Enters :—		
Karkata	on	Nov. 9, 1961
Mithuna	”	May 1, 1963
Vṛṣa	”	Nov. 7, 1964
Meṣa	”	July 20, 1966

Enters :—		
Mīna	on	Jan. 13, 1968
Kumbha	”	July 9, 1969
Makara	”	Mar. 13, 1971

LUNAR ECLIPSES

(The timings are given in Indian Standard Time)

Date			Middle of eclipse		Eclipse begins		Totality begins		Totality ends		Eclipse ends		Visibility in India
			h	m	h	m	h	m	h	m	h	m	
1961	Mar.	2P	18	58	17	21	—		—		20	35	Visible
,,	Aug.	26P	8	38	7	05	—		—		10	12	Invisible
1962	—	—	—		—		—		—		—		—
1963	July	6P	27	32	26	02	—		—		29	03	Visible
,,	Dec.	30T	16	37	14	54	15	57	17	16	18	19	Visible
1964	June	25T	6	36	4	39	5	46	7	27	8	33	Visible
,,	Dec.	19T	8	07	6	29	7	37	8	37	9	45	Visible
1965	June	14P	7	19	6	28	—		—		8	10	Invisible
1966	—	—	—		—		—		—		—		—
1967	Apr.	24T	17	37	15	55	16	57	18	16	19	18	Partly Visible
,,	Oct.	18T	15	45	13	55	15	15	16	16	17	35	Partly Visible
1968	Apr.	13T	10	17	8	40	9	53	10	42	11	55	Invisible
,,	Oct.	6T	17	12	15	25	16	40	17	44	18	59	Partly Visible
1969	—	—	—		—		—		—		—		—
1970	Feb.	21P	14	00	13	32	—		—		14	28	Invisible
,,	Aug.	17P	8	33	7	47	—		—		10	00	Invisible
1971	Feb.	10T	13	15	11	22	12	33	13	56	15	07	Invisible
,,	Aug.	6T	25	13	23	25	24	23	26	03	27	01	Visible

T = Total lunar eclipse P = Partial lunar eclipse

SOLAR ECLIPSES

(Given in Indian Standard Time)

Date			Middle of eclipse		Eclipse begins		Totality or Annu. begins		Totality or Annu. ends		Eclipse ends		Visibility in India
			h	m	h	m	h	m	h	m	h	m	
1961	Feb.	15 T	14	13	11	39	13	01	14	37	16	00	Visible
,,	Aug.	11 R	16	39	13	43	15	22	17	10	18	29	Invisible
1962	Feb.	5 T	5	42	3	04	4	01	7	23	8	20	,,
,,	July	31 R	17	55	14	56	16	00	19	49	20	54	,,
1963	Jan.	25 R	19	07	16	27	17	32	20	41	21	47	,,
,,	July	20 T	26	06	23	34	24	44	27	27	28	37	,,
1964	Jan.	14 P	26	00	24	08	—		—		27	51	,,
,,	June	10 P	10	04	8	19	—		—		11	48	,,
,,	July	9 P	16	47	15	35	—		—		17	59	,,
,,	Dec.	4 P	7	01	4	51	—		—		9	12	,,
1965	May	30 T	26	47	24	12	25	12	28	22	29	22	,,
,,	Nov.	23 R	9	41	6	54	8	01	11	28	12	35	Visible
1966	May	20 R	15	08	12	20	13	24	16	53	17	56	Visible
,,	Nov.	12 T	19	53	17	13	18	13	21	33	22	33	Invisible
1967	May	9 P	20	12	18	07	—		—		22	17	,,
,,	Nov.	2 T	11	08	9	08	10	56	11	20	13	08	,,
1968	Mar.	29 P	4	30	2	14	—		—		6	47	,,
,,	Sept.	22 T	16	48	14	37	16	14	17	23	19	00	Visible
1969	Mar.	18 R	10	24	7	36	8	39	12	10	13	12	Invisible
,,	Sept.	11 R	25	28	22	31	23	37	27	10	28	25	,,
1970	Mar.	7 T	23	08	20	34	21	35	24	41	25	41	,,
,,	Sept.	1 R	3	25	0	30	1	45	5	05	6	19	,,
1971	Feb.	25 P	15	07	13	19	—		—		16	56	,,
,,	July	22 P	15	01	14	22	—		—		15	41	,,
,,	Aug.	21 P	4	09	2	22	—		—		5	55	,,

T = Total solar eclipse R = Annular solar eclipse P = Partial solar eclipse

Motion of planets

Movement of the Sun and planets (except Mercury) from 5-30 a.m. of the preceding given date up to the desired moment can be found from the following table according to the motion for 2 days obtained from the ephemeris

Day and Time (I.S.T.)	Motion for 2 days								
	10′	20′	30′	40′	50′	1°-00′	1°-30′	2°-0′	2°-30′
Given date 5-30 a.m.	0′	0′	0′	0′	0′	0° 00′	0° 00′	0° 00′	0° 00′
" " 11-30 a.m.	1	2	4	5	6	0 08	0 12	0 15	0 19
" " 5-30 p.m.	3	5	8	10	12	0 15	0 23	0 30	0 38
" " 11-30 p.m.	4	7	11	15	19	0 23	0 34	0 45	0 56
2nd day 5-30 a.m.	5	10	15	20	25	0 30	0 45	1 00	1 15
" " 11-30 a.m.	6	12	19	25	31	0 38	0 57	1 15	1 34
" " 5-30 p.m.	8	15	23	30	38	0 45	1 08	1 30	1 53
" " 11-30 p.m.	9	17	26	35	44	0 53	1 19	1 45	2 11
3rd day 5-30 a.m.	10	20	30	40	50	1 00	1 30	2 00	2 30
Motion for 3 hrs.	1	1	2	2	3	4	6	7	10

Motion of Moon

Movement of the Moon up to the desired moment from 5-30 A.M. of the given date can be found according to its daily motion obtained from the ephemeris

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0′	15° 30′
h m 5 30 a.m.	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′	0° 0′
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 56
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 a.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 p.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 49
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 p.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 a.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 a.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Rahu, Uranus, Neptune and Pluto

Motion for 30 days distributed

Day	20′	40′	1°–0′	1°–30′	1°–35′	1°–40′	2°–0′	2°–30′	3°–0′	3°–30′
2	1′	3′	4′	6′	6′	7′	8′	10′	12′	14′
4	3	5	8	12	13	13	16	20	24	28
6	4	8	12	18	19	20	24	30	36	42
8	5	11	16	24	25	27	32	40	48	56
10	7	13	20	30	32	33	40	50	1– 0	1–10
15	10	20	30	45	48	50	1– 0	1–15	1–30	1–45
20	13	27	40	1– 0	1– 3	1– 7	1–20	1–40	2– 0	2–20
25	17	33	50	1–15	1–19	1–23	1–40	2– 5	2–30	2–55
30	20	40	60	1–30	1–35	1–40	2– 0	2–30	3– 0	3–30

Longitudes of Planets at the given time

The longitudes of planets (including Sun and Moon) required for any given moment can be calculated from those provided in the ephemeris for the two epochs one preceding and the other following the given moment, by utilising the motion for 2 days (one day in case of Mercury and also of Moon) obtained from the ephemeris by subtraction. In the calculation, the tables given on the previous page may be used, or to be more accurate, the two logarithmic tables given at the end of the book may be utilised.

For the longitude of the Moon (and also of Mercury) the logarithmic calculation is to be done with the help of Table I alone but for other planets both Tables I and II will have to be used. Example for finding the moon's longitude by Prop. Logarithm has been given at the bottom of Table I on page 97. The use of the table in case of other planets is illustrated below.

Example I—Find the long. of Sun on Aug. 15, 1967 at 0*h*30*m* A.M. (i.e. after midnight of Aug. 14). Long. of Sun on Aug. 13, 1967, 5-30 A.M. $= 3^s\ 26°\ 10'$; motion in next two days $1° 56'$, its log from Table I = 1·0939. Aug. 15th is the third day from Aug. 13th. So from Table II under column next given date and against the given time 0-30 A.M., the log is found to be ·0478. The sum of these two logarithms is 1·1417, which is the logarithm of $1° 43'$ nearly (from Table I). Hence the required longitude of Sun is $3^s 26° 10' + 1° 43' = 3^s 27° 53'$. In the same way the longitudes of Saturn, Jupiter, Mars and Venus can be obtained.

Example II—For Mercury the calculation is slightly different. For example let us find the long. of Mercury on Aug 16, 1967, at 3-0 P.M. The longitude has been given for Aug. 15 $(= 3^s 17° 59')$ and for Aug. 17 $(= 3^s\ 21°\ 58')$. Hence the motion for 2 days $= 3°\ 59'$; its log is ·7800 (Table I). Aug. 16th is second day from Aug. 15th. From Table II log second day 3-0 P.M. = ·1562. Sum of these two is ·9362, which is the log of $2° 47'$ (Table I). Hence the required long. of Mercury is $3^s\ 17°\ 59' + 2° 47' = 3^s 20° 46'$.

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon			Krittikādi Daśā				Ardrādi Daśā			
	s	°	′		y	m	d		y	m	d
1 Aśvinī	0	0	0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0	13	20		5	3	0		3	0	0
3 Kṛttikā	0	26	40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1	10	0		4	0	0		14	0	0
5 Mṛgaśiras	1	23	20		2	0	0		7	0	0
6 Ārdrā	2	6	40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2	20	0		11	3	0		4	6	0
8 Puṣya	3	3	20		7	6	0		3	0	0
9 Aśleṣā	3	16	40		3	9	0		1	6	0
10 Maghā	4	0	0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4	13	20		5	4	0		10	0	0
12 U. Phalguni	4	26	40		2	8	0		5	0	0
13 Hasta	5	10	0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5	23	20		12	9	0		6	0	0
15 Svātī	6	6	40		8	6	0		4	0	0
16 Viśākhā	6	20	0		4	3	0		2	0	0
17 Anurādha	7	3	20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7	16	40		6	8	0		11	4	0
19 Mūla	8	0	0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8	13	20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8	26	40		12	8	0		6	8	0
22 Sravaṇa	9	10	0		6	4	0		3	4	0
23 Dhaniṣṭhā	9	23	20	Rahu	12	0	0	Jupiter	19	0	0
24 Satabhiṣaj	10	6	40		8	0	0		12	8	0
25 P. Bhadrapada	10	20	0		4	0	0		6	4	0
26 U. Bhādrapadā	11	3	20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11	16	40		15	9	0		9	0	0
1 Aśvinī	12	0	0		10	6	0		6	0	0

Proportional Parts for Dasa of Planets

(To be subtracted from the balance of dasa given above)

Long. of Moon		Sun (6y)		Moon (15y)		Mars (8y)		Mercury (17y)		Saturn (10y)		Jupiter (19y)		Rahu (12y)		Venus (21y)	
Krittikadi		m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0°	10′	0	9·0	0	16·9	0	12·0	0	19·1	0	15·0	0	28·5	0	18·0	0	23·6
1	0	1	24·0	3	11·3	2	12·0	3	24·6	3	0·0	5	21·0	3	18·0	4	21·8
1	20	2	12·0	4	15·0	3	6·0	5	3·0	4	0·0	7	18·0	4	24·0	6	9·0
4	0	7	6·0	13	15·0	9	18·0	15	9·0	12	0·0	22	24·0	14	12·0	18	27·0
13	20	24	0·0	45	0·0	32	0·0	51	0·0	40	0·0	76	0·0	48	0·0	63	0·0
Nakshatras		3, 4, 5		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2	
Ardradi		m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0°	10′	0	6·8	0	22·5	0	9·0	0	25·5	0	15·0	0	28.5	0	13.5	1	1·5
1	0	1	10·5	4	15·0	1	24·0	5	3·0	3	0·0	5	21.0	2	21.0	6	9·0
1	20	1	24·0	6	0·0	2	12·0	6	24·0	4	0·0	7	18·0	3	18.0	8	12·0
4	0	5	12·0	18	0·0	7	6·0	20	12·0	12	0·0	22	24·0	10	24.0	25	6·0
13	20	18	0·0	60	0·0	24	0·0	68	0·0	40	0·0	76	0·0	36	0.0	84	0·0
Nakshatras		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2		3,4,5	

ASTOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—15						Mars (Mangala)—8							
	Sub Periods			Total			Sub Periods			Total			Sub Periods				Total			
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	h	y	m	d	h
Sun	0	4	0	0	4	0		—			—			—				—		
Moon	0	10	0	1	2	0	2	1	0	2	1	0		—				—		
Mars	0	5	10	1	7	10	1	1	10	3	2	10	0	7	3	8	0	7	3	8
Mercury	0	11	10	2	6	20	2	4	10	5	6	20	1	3	3	8	1	10	6	16
Saturn	0	6	20	3	1	10	1	4	20	6	11	10	0	8	26	16	2	7	3	8
Jupiter	1	0	20	4	2	0	2	7	20	9	7	0	1	4	26	16	4	0	0	0
Rahu	0	8	0	4	10	0	1	8	0	11	3	0	0	10	20	0	4	10	20	0
Venus	1	2	0	6	0	0	2	11	0	14	2	0	1	6	20	0	6	5	10	0
Sun		—			—		0	10	0	15	0	0	0	5	10	0	6	10	20	00
Moon		—			—			—			—		1	1	10	0	8	0	0	0

DASA

Antardaśā	Mercury (Budha)—17								Saturn (Sani)—10							
	Sub Periods				Total				Sub Periods				Total			
	y	m	d	h	y	m	d	h	y	m	d	h	y	m	d	h
Mercury	2	8	3	8	2	8	3	8		—				—		
Saturn	1	6	26	16	4	3	0	0	0	11	3	8	0	11	3	8
Jupiter	2	11	26	16	7	2	26	16	1	9	3	8	2	8	6	16
Rahu	1	10	20	0	9	1	16	16	1	1	10	0	3	9	16	16
Venus	3	3	20	0	12	5	6	16	1	11	10	0	5	8	26	16
Sun	0	11	10	0	13	4	16	16	0	6	20	0	6	3	16	16
Moon	2	4	10	0	15	8	26	16	1	4	20	0	7	8	6	16
Mars	1	3	3	8	17	0	0	0	0	8	26	16	8	5	3	8
Mercury		—				—			1	6	26	16	10	0	0	0

DASA

Antardaśā	Jupiter (Brihaspati)—19								Rahu—12						Venus (Sukra)—21					
	Sub Periods				Total				Sub Periods			Total			Sub Periods			Total		
	y	m	d	h	y	m	d	h	y	m	d	y	m	d	y	m	d	y	m	d
Jupiter	3	4	3	8	3	4	3	8		—			—			—			—	
Rahu	2	1	10	0	5	5	13	8	1	4	0	1	4	0		—			—	
Venus	3	8	10	0	9	1	23	8	2	4	0	3	8	0	4	1	0	4	1	0
Sun	1	0	20	0	10	2	13	8	0	8	0	4	4	0	1	2	0	5	3	0
Moon	2	7	20	0	12	10	3	8	1	8	0	6	0	0	2	11	0	8	2	0
Mars	1	4	26	16	14	3	0	0	0	10	20	6	10	20	1	6	20	9	8	20
Mercury	2	11	26	16	17	2	26	16	1	10	20	8	9	10	3	3	20	13	0	10
Saturn	1	9	3	8	19	0	0	0	1	1	10	9	10	20	1	11	10	14	11	20
Jupiter		—				—			2	1	10	12	0	0	3	8	10	18	8	0
Rahu		—				—				—			—		2	4	0	21	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon		*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
°	′		y	m	d		y	m	d		y	m	d		y	m	d
0	0	Ketu	7	0	0	Sun	4	6	0	Mars	3	6	0	Jupiter	4	0	0
0	20		6	9	27		4	4	6		3	3	27		3	7	6
0	40		6	7	24		4	2	12		3	1	24		3	2	12
1	0		6	5	21		4	0	18		2	11	21		2	9	18
1	20		6	3	18		3	10	24		2	9	18		2	4	24
1	40		6	1	15		3	9	0		2	7	15		2	0	0
2	0		5	11	12		3	7	6		2	5	12		1	7	6
2	20		5	9	9		3	5	12		2	3	9		1	2	12
2	40		5	7	6		3	3	18		2	1	6		0	9	18
3	0		5	5	3		3	1	24		1	11	3		0	4	24
3	20		5	3	0		3	0	0		1	9	0	Saturn	19	0	0
3	40		5	0	27		2	10	6		1	6	27		18	6	9
4	0		4	10	24		2	8	12		1	4	24		18	0	18
4	20		4	8	21		2	6	18		1	2	21		17	6	27
4	40		4	6	18		2	4	24		1	0	18		17	1	6
5	0		4	4	15		2	3	0		0	10	15		16	7	15
5	20		4	2	12		2	1	6		0	8	12		16	1	24
5	40		4	0	9		1	11	12		0	6	9		15	8	3
6	0		3	10	6		1	9	18		0	4	6		15	2	12
6	20		3	8	3		1	7	24		0	2	3		14	8	21
6	40		3	6	0		1	6	0	Rahu	18	0	0		14	3	0
7	0		3	3	27		1	4	6		17	6	18		13	9	9
7	20		3	1	24		1	2	12		17	1	6		13	3	18
7	40		2	11	21		1	0	18		16	7	24		12	9	27
8	0		2	9	18		0	10	24		16	2	12		12	4	6
8	20		2	7	15		0	9	0		15	9	0		11	10	15
8	40		2	5	12		0	7	6		15	3	18		11	4	24
9	0		2	3	9		0	5	12		14	10	6		10	11	3
9	20		2	1	6		0	3	18		14	4	24		10	5	12
9	40		1	11	3		0	1	24		13	11	12		9	11	21
10	0		1	9	0	Moon	10	0	0		13	6	0		9	6	0
10	20		1	6	27		9	9	0		13	0	18		9	0	9
10	40		1	4	24		9	6	0		12	7	6		8	6	18
11	0		1	2	21		9	3	0		12	1	24		8	0	27
11	20		1	0	18		9	0	0		11	8	12		7	7	6
11	40		0	10	15		8	9	0		11	3	0		7	1	15
12	0		0	8	12		8	6	0		10	9	18		6	7	24
12	20		0	6	9		8	3	0		10	4	6		6	2	3
12	40		0	4	6		8	0	0		9	10	24		5	8	12
13	0		0	2	3		7	9	0		9	5	12		5	2	21
13	20	Venus	20	0	0		7	6	0		9	0	0		4	9	0
13	40		19	6	0		7	3	0		8	6	18		4	3	9
14	0		19	0	0		7	0	0		8	1	6		3	9	18
14	20		18	6	0		6	9	0		7	7	24		3	3	27
14	40		18	0	0		6	6	0		7	2	12		2	10	6
15	0		17	6	0		6	3	0		6	9	0		2	4	15
15	20		17	0	0		6	0	0		6	3	18		1	10	24
15	40		16	6	0		5	9	0		5	10	6		1	5	3
16	0		16	0	0		5	6	0		5	4	24		0	11	12
16	20		15	6	0		5	3	0		4	11	12		0	5	21
16	40		15	0	0		5	0	0		4	6	0	Mercur.	17	0	0
17	0		14	6	0		4	9	0		4	0	18		16	6	27
17	20		14	0	0		4	6	0		3	7	6		16	1	24
17	40		13	6	0		4	3	0		3	1	24		15	8	21
18	0		13	0	0		4	0	0		2	8	12		15	3	18
18	20		12	6	0		3	9	0		2	3	0		14	10	15
18	40		12	0	0		3	6	0		1	9	18		14	5	12
19	0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimsottari Dasa—contd.

Long. of Moon	*Moon in* Meṣa, Siṃha, Dhanus				*Moon in* Vṛṣa, Kanyā, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkaṭa Vṛścika, Mina			
° ′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
19 0	**VENUS**	11	6	0	**MOON**	3	3	0	**RAHU**	1	4	6	**MERC.**	14	0	9
19 20		11	0	0		3	0	0		0	10	24		13	7	6
19 40		10	6	0		2	9	0		0	5	12		13	2	3
20 0		10	0	0		2	6	0	**Jupiter**	16	0	0		12	9	0
20 20		9	6	0		2	3	0		15	7	6		12	3	27
20 40		9	0	0		2	0	0		15	2	12		11	10	24
21 0		8	6	0		1	9	0		14	9	18		11	5	21
21 20		8	0	0		1	6	0		14	4	24		11	0	18
21 40		7	6	0		1	3	0		14	0	0		10	7	15
22 0		7	0	0		1	0	0		13	7	6		10	2	12
22 20		6	6	0		0	9	0		13	2	12		9	9	9
22 40		6	0	0		0	6	0		12	9	18		9	4	6
23 0		5	6	0		0	3	0		12	4	24		8	11	3
23 20		5	0	0	**Mars**	7	0	0		12	0	0		8	6	0
23 40		4	6	0		6	9	27		11	7	6		8	0	27
24 0		4	0	0		6	7	24		11	2	12		7	7	24
24 20		3	6	0		6	5	21		10	9	18		7	2	21
24 40		3	0	0		6	3	18		10	4	24		6	9	18
25 0		2	6	0		6	1	15		10	0	0		6	4	15
25 20		2	0	0		5	11	12		9	7	6		5	11	12
25 40		1	6	0		5	9	9		9	2	12		5	6	9
26 0		1	0	0		5	7	6		8	9	18		5	1	6
26 20		0	6	0		5	5	3		8	4	24		4	8	3
26 40	**Sun**	6	0	0		5	3	0		8	0	0		4	3	0
27 0		5	10	6		5	0	27		7	7	6		3	9	27
27 20		5	8	12		4	10	24		7	2	12		3	4	24
27 40		5	6	18		4	8	21		6	9	18		2	11	21
28 0		5	4	24		4	6	18		6	4	24		2	6	18
28 20		5	3	0		4	4	15		6	0	0		2	1	15
28 40		5	1	6		4	2	12		5	7	6		1	8	12
29 0		4	11	12		4	0	9		5	2	12		1	3	9
29 20		4	9	18		3	10	6		4	9	18		0	10	6
29 40		4	7	24		3	8	3		4	4	24		0	5	3
30 0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7*y*)		Venus (20*y*)		Sun (6*y*)		Moon (10*y*)		Mars (7*y*)		Rāhu (18*y*)		Jupiter (16*y*)		Saturn (19*y*)		Merc. (17*y*)		
′	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

VIMSOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6		Moon (Chandra)—10		Mars (Mangala)—7	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Sun	0 3 18	0 3 18	—	—	—	—
Moon	0 6 0	0 9 18	0 10 0	0 10 0	—	—
Mars	0 4 6	1 1 24	0 7 0	1 5 0	0 4 27	0 4 27
Rahu	0 10 24	2 0 18	1 6 0	2 11 0	1 0 18	1 5 15
Jupiter	0 9 18	2 10 6	1 4 0	4 3 0	0 11 6	2 4 21
Saturn	0 11 12	3 9 18	1 7 0	5 10 0	1 1 9	3 6 0
Mercury	0 10 6	4 7 24	1 5 0	7 3 0	0 11 27	4 5 27
Ketu	0 4 6	5 0 0	0 7 0	7 10 0	0 4 27	4 10 24
Venus	1 0 0	6 0 0	1 8 0	9 6 0	1 2 0	6 0 24
Sun	—	—	0 6 0	10 0 0	0 4 6	6 5 0
Moon	—	—	—	—	0 7 0	7 0 0

DASA

Antardaśā	Rahu—18		Jupiter (Brihaspati)—16		Saturn (Sani)—19	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Rahu	2 8 12	2 8 12	—	-	—	—
Jupiter	2 4 24	5 1 6	2 1 18	2 1 18	—	—
Saturn	2 10 6	7 11 12	2 6 12	4 8 0	3 0 3	3 0 3
Mercury	2 6 18	10 6 0	2 3 6	6 11 6	2 8 9	5 8 12
Ketu	1 0 18	11 6 18	0 11 6	7 10 12	1 1 9	6 9 21
Venus	3 0 0	14 6 18	2 8 0	10 6 12	3 2 0	9 11 21
Sun	0 10 24	15 5 12	0 9 18	11 4 0	0 11 12	10 11 3
Moon	1 6 0	16 11 12	1 4 0	12 8 0	1 7 0	12 6 3
Mars	1 0 18	18 0 0	0 11 6	13 7 6	1 1 9	13 7 12
Rahu	—	—	2 4 24	16 0 0	2 10 6	16 5 18
Jupiter	—	—	—	—	2 6 12	19 0 0

DASA

Antardaśā	Mercury (Budha)—17		Ketu—7		Venus (Sukra)—20	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Mercury	2 4 27	2 4 27	—	—	—	—
Ketu	0 11 27	3 4 24	0 4 27	0 4 27	—	—
Venus	2 10 0	6 2 24	1 2 0	1 6 27	3 4 0	3 4 0
Sun	0 10 6	7 1 0	0 4 6	1 11 3	1 0 0	4 4 0
Moon	1 5 0	8 6 0	0 7 0	2 6 3	1 8 0	6 0 0
Mars	0 11 27	9 5 27	0 4 27	2 11 0	1 2 0	7 2 0
Rahu	2 6 18	12 0 15	1 0 18	3 11 18	3 0 0	10 2 0
Jupiter	2 3 6	14 3 21	0 11 6	4 10 24	2 8 0	12 10 0
Saturn	2 8 9	17 0 0	1 1 9	6 0 3	3 2 0	16 0 0
Mercury	—	—	0 11 27	7 0 0	2 10 0	18 10 0
Ketu	—	—	—	—	1 2 0	20 0 0

Navamsa Signs and their Lords

NAVAMSAS

Sign	1st 0° 0′ to 3°20′	2nd 3°20′ to 6°40′	3rd 6°40′ to 10°0′	4th 10°0′ to 13°20′	5th 13°20′ to 16°40′	6th 16°40′ to 20°0′	7th 20°0′ to 23°20′	8th 23°20′ to 26°40′	9th 26°40′ to 30° 0
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vrischika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Rasi) of Mesha etc. The Lords of the navamsa signs are indicated by the planetary symbols.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakṣatra	Long. s ° ′	Vimśottarī Daśā	yrs.	Nakṣatra	Long. s ° ′	Vimśottarī Daśā	yrs.
1 Aśvinī	0 0 0	Ketu	7	15 Svātī	6 6 40	Rāhu	18
2 Bharaṇī	0 13 20	Venus	20	16 Viśākhā	6 20 0	Jupiter	16
3 Kṛttikā	0 26 40	Sun	6	17 Anurādhā	7 3 20	Saturn	19
4 Rohiṇī	1 10 0	Moon	10	18 Jyeṣṭhā	7 16 40	Mercury	17
5 Mṛgaśiras	1 23 20	Mars	7	19 Mūla	8 0 0	Ketu	7
6 Ārdrā	2 6 40	Rāhu	18	20 Pūrvāṣāḍhā	8 13 20	Venus	20
7 Punarvasu	2 20 0	Jupiter	16	21 Uttarāṣāḍhā	8 26 40	Sun	6
8 Puṣya	3 3 20	Saturn	19	22 Sravaṇa	9 10 0	Moon	10
9 Aśleṣā	3 16 40	Mercury	17	23 Dhaniṣṭhā	9 23 20	Mars	7
10 Maghā	4 0 0	Ketu	7	24 Śatabhisaj	10 6 40	Rāhu	18
11 P. Phalgunī	4 13 20	Venus	20	25 P.Bhādrapad	10 20 0	Jupiter	16
12 U. Phalgunī	4 26 40	Sun	6	26 U.Bhādrapad	11 3 20	Saturn	19
13 Hasta	5 10 0	Moon	10	27 Revatī	11 16 40	Mercury	17
14 Citrā	5 23 20	Mars	7	1 Aśvinī	12 0 0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

SUNRISE AND SUNSET

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the Indian Ephemeris and deduct it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is almost the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs., 8yrs., 12yrs., etc., and again after 21yrs., 25yrs. 29yrs., 33yrs., 37yrs., 41yrs., 45yrs.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T.+11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 28′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
January 1	6 15	5 51	6 26	5 41	6 37	5 30	6 50	5 17	6 57	5 11
5	17	53	27	43	38	32	51	19	57	14
9	18	56	29	45	39	35	52	22	58	17
13	20	5 58	29	48	39	38	52	25	58	20
17	21	6 0	30	50	40	40	52	28	58	23
21	21	1	31	52	40	43	51	31	57	26
25	22	3	31	54	40	45	50	34	55	30
29	22	4	30	56	39	47	49	37	54	33
Febry. 2	6 22	6 5	6 30	5 58	6 38	5 50	6 47	5 40	6 52	5 36
6	22	6	29	5 59	36	52	45	43	49	40
10	22	7	28	6 1	35	54	43	46	47	43
14	21	6	27	2	33	56	40	49	43	46
18	20	8	25	3	31	58	37	51	40	49
22	19	9	23	4	28	5 59	34	54	36	51
26	18	9	21	5	25	6 1	30	56	32	54
March 2	6 16	6 9	6 19	6 6	6 23	6 2	6 27	5 58	6 28	5 57
6	14	9	17	6	20	3	23	6 0	24	5 59
10	13	8	14	6	16	5	19	2	20	6 2
14	11	8	12	7	13	6	15	4	15	4
18	9	8	9	7	10	7	11	6	11	6
22	7	7	7	8	7	8	6	8	6	9
26	5	7	4	8	3	9	6 2	10	6 1	11
30	3	6	6 1	8	6 0	10	5 58	11	5 57	13
April 3	6 1	6 6	5 59	6 8	5 57	6 11	5 54	6 13	5 52	6 15
7	5 59	6	56	9	53	11	50	15	48	18
11	57	5	54	9	50	12	46	17	43	20
15	56	5	51	9	47	13	42	19	39	22
19	54	5	49	10	44	14	38	20	35	24
23	52	4	47	10	41	16	35	22	31	27
27	51	4	45	11	39	17	31	24	27	29
May 1	5 50	6 5	5 43	6 11	5 36	6 18	5 28	6 26	5 23	6 31
5	49	5	41	12	34	19	25	28	20	34
9	48	5	40	13	32	21	23	30	17	36
13	47	5	39	14	30	22	20	32	14	39
17	47	6	38	15	29	24	18	34	12	41
21	47	6	37	16	28	25	16	36	10	43
25	46	7	37	17	27	27	15	38	8	46
29	46	8	36	18	26	28	14	40	7	48
June 2	5 46	6 9	5 36	6 19	5 26	6 30	5 13	6 42	5 6	6 50
6	47	10	36	20	26	31	13	44	5	52
10	47	11	37	22	26	33	13	46	5	54
14	48	12	37	23	26	34	13	47	5	55
18	49	13	38	24	27	35	13	48	5	56
22	49	14	39	25	27	36	14	49	6	57
26	50	15	40	25	28	37	15	50	7	58
30	5 51	6 15	5 41	6 26	5 29	6 37	5 16	6 50	5 9	6 58

N.B.—To obtain Indian Standard Time of Sunrise and Sunset, apply to the above the difference between the standard time and the local time of the place. The I. S. T. corrections for the above places are given in brackets.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T. +11m)		Mad. Bang. 13° N 0′ (+9, +20m)		Bombay 18° N 58′ (+39m)		Allahabad 25° N 28′ (+3m)		Delhi 28° N 39′ (+21m)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h	h m	h m	h m	h m	h m	h m
July 4	5 52	6 16	5 42	6 26	5 31	6 37	5 18	6 50	5 10	6 58
8	53	16	43	27	32	37	19	50	12	58
12	55	16	44	27	33	37	21	50	14	57
16	55	16	45	27	35	37	23	49	16	56
20	56	16	46	26	36	36	25	48	18	54
24	56	16	47	26	38	35	26	46	20	53
28	57	16	48	25	39	34	28	44	22	50
August 1	5 57	6 15	5 49	6 24	5 40	6 32	5 30	6 42	5 25	6 48
5	57	14	50	22	42	30	32	40	27	45
9	57	13	50	21	43	28	34	37	29	42
13	57	12	51	19	44	26	36	34	31	38
17	57	11	51	17	45	23	38	31	34	34
21	57	9	52	15	46	20	39	27	36	30
25	57	8	52	12	47	17	41	23	38	26
29	56	6	52	10	48	14	43	19	40	22
Septr. 2	5 56	6 4	5 52	6 7	5 49	6 11	5 44	6 15	5 42	6 17
6	55	2	52	5	50	8	46	11	44	13
10	55	6 0	52	6 2	50	4	47	7	46	8
14	54	5 58	52	5 59	51	6 1	49	6 3	48	6 3
18	53	55	52	56	52	5 57	50	5 58	50	5 58
22	53	53	52	53	52	54	52	54	52	54
26	52	51	53	51	53	50	54	50	54	49
30	52	49	53	48	54	47	55	45	56	44
October 4	5 51	5 47	5 53	5 45	5 55	5 43	5 57	5 41	5 58	5 40
8	51	45	53	43	56	40	5 59	37	6 0	35
12	50	43	53	40	57	37	6 0	33	2	31
16	50	41	54	38	58	34	2	29	5	26
20	50	40	54	36	5 59	31	5	25	7	22
24	50	39	55	34	6 0	28	7	22	10	18
28	50	38	56	32	2	26	9	19	13	15
Novr. 1	5 51	5 37	5 57	5 30	6 4	5 24	6 11	5 16	6 15	5 12
5	51	36	5 58	29	5	22	14	13	18	9
9	52	35	6 0	28	7	20	19	11	21	6
13	53	35	1	27	10	19	22	9	25	4
17	54	35	3	27	12	18	25	7	28	2
21	56	36	5	27	14	17	27	6	31	1
25	57	36	7	27	17	17	28	6	34	5 0
29	5 59	37	9	27	19	17	31	5	37	4 59
Decr. 3	6 1	5 38	6 11	5 28	6 21	5 18	6 34	5 5	6 40	4 59
7	3	40	13	29	24	19	37	6	43	5 0
11	5	41	15	31	26	20	40	6	46	0
15	7	43	18	32	29	21	42	7	49	2
19	9	45	20	34	31	23	44	9	51	3
23	11	47	22	36	33	25	46	11	53	5
27	13	49	24	38	35	27	48	13	55	7
31	6 15	5 51	6 25	5 40	6 37	5 29	6 50	5 16	6 56	5 10

Note :—These timings relate to the coincidence (astronomical or true) of the centre of the Sun with the horizon, without any correction for refraction. Correction for visibility of the upper limb : −3*m* for rise, +3*m* for set.

Proportional Logarithms for finding Planets' places

Min.	DEGREES OR HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7892	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1.6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1.6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1.6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1.5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1.5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1.5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1.5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1.5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1.5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1.4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1.4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1.4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1.4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3875	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1.0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Proportional Logarithms—contd.

Min.	DEGREES OR HOURS											Min.
	13	14	15	16	17	18	19	20	21	22	23	
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
:	13	14	15	16	17	18	19	20	21	22	23	

Rule :—Add proportional log of planet's daily motion to log of time from 5-30 A.M., I. S. T. and the sum will be the log of the movement required. Add this movement to the given position of planet, if the time be after 5-30 A.M., but subtract if before, and the result will be the planet's true place at the given moment. (If retrograde subtract for add.)

Example :—Required longitude of moon on 14th April 1971 at 6-52 A.M. I.S.T. Time from 5-30 A.M. (14th) is 1*h* 22*m*, log. of which = 1·2445. Moon's daily motion is 12°34′, its log = ·2810. Sum of these two = 1·5255 which is log of 0° 43′, the required movement. Hence the required longitude of moon is 7s 5° 29′ + 0° 43′ = 7s 6° 12′, *i.e.* *Vrischika* 6° 12′.

Prop. Logarithms for finding Planets' Places—Table II

Log. of time interval from the given epoch.

Time (I.S.T.)	For all planets except Mercury & Moon			For Mercury & Moon	
	Given date	Second day	Next given date	Given date	Next day
h m					
0 00 A.M.		0·4141	0·0529		0·1130
0 30		·4025	·0478		·1015
1 00		·3912	·0428		·0902
1 30		·3802	·0378		·0792
2 00		·3695	·0329		·0685
2 30		·3590	·0280		·0580
3 00		·3488	·0232		·0478
3 30		·3388	·0185		·0378
4 00		·3291	·0138		·0280
4 30		·3195	·0091		·0185
5 00 A.M.		0·3102	0·0045		0·0091
5 30	∝	·3010	0·0000	∝	0·0000
6 00	1·9823	·2921		1·6812	
6 30	1·6812	·2833		1·3802	
7 00	1·5051	·2747		1·2041	
7 30	1·3802	·2663		1·0792	
8 00	1·2833	·2580		0·9823	
8 30	1·2041	·2499		·9031	
9 00	1·1372	·2419		·8361	
9 30	1·0792	·2341		·7781	
10 00 A.M.	1·0280	0·2264		0·7270	
10 30	0·9823	·2188		·6812	
11 00	·9409	·2114		·6398	
11 30	·9031	·2041		·6021	
12 00 (noon)	·8683	·1969		·5673	
12 30 P.M.	·8361	·1899		·5351	
1 00	·8062	·1829		·5051	
1 30	·7781	·1761		·4771	
2 00	·7518	·1694		·4508	
2 30	·7270	·1627		·4260	
3 00 P.M.	0·7035	0·1562		0·4025	
3 30	·6812	·1498		·3802	
4 00	·6601	·1434		·3590	
4 30	·6398	·1372		·3388	
5 00	·6205	·1310		·3195	
5 30	·6021	·1249		·3010	
6 00	·5843	·1189		·2833	
6 30	·5673	·1130		·2663	
7 00	·5509	·1072		·2499	
7 30	·5351	·1015		·2341	
8 00 P.M.	0·5199	0·0958		0·2188	
8 30	·5051	·0902		·2041	
9 00	·4909	·0846		·1899	
9 30	·4771	·0792		·1761	
10 00	·4638	·0738		·1627	
10 30	·4508	·0685		·1498	
11 00	·4382	·0632		·1372	
11 30	·4260	·0580		·1249	
12 00 (midnight)	0·4141	0·0529		0·1130	

Rule :—Prop. Log. of time from the above Table II is to be added to log. of planet's 2 days' or 1 day's motion as the case may be from Table I, and the result will be the log. (Tab. I) of planet's required movement up to the moment from the previous given epoch.

Instructions for Erecting a Birth-Chart

At first obtain the date and time of birth and the name of the locality of birth, i.e. the birth place. If the time available be the local mean time of the place which was in vogue all over India before 1st January 1906. the same should be converted into the present I.S.T. by applying properly the local time correction for the place of birth. From 1st September 1947 the use of L.M.T. was completely abandoned and I.S.T. was adopted for all places of India. In some cases the time of birth is supplied in ghati (danda or nadika) and vighati (pala or vinadika). In that case convert ghati, vighati into hours and minutes applying the relation that 24 minutes make one ghati and 24 secs. make one vighati and add the result to the sunrise time, or to the Sunset time when the ghati and vigahati is given from sunset in case of birth in night. In this way the birth time is obtained in hours and minutes of the clock. But before that one should be sure, that the sunrise or sunset time available is not in L.M.T. nor in Local apparent time, but in I.S.T. In the former case obtain the sunrise time for the date and locality in question in I.S.T. by calculation and then obtain the birth time which is then in I.S.T. Conversion of time into L.M.T. and vice-versa into I S.T. has been discussed in author's TABLES OF ASCENDANTS. Both L.M.T. and I.S.T. would be required in the preparation of horoscope, so keep both the times recorded in the working sheet. For the birth place obtain the latitude and longitude measured from Greenwich. If the exact value of these co-ordinate are not known, then work with those of the nearest city available. The longitude will be utilised in finding the local time of place and the latitude in determining the Lagna or Ascendant.

Many foreign countries keep SUMMER TIME, i.e. they advance their clocks by one-hour during summer seasons. In that case the recorded birth time should be reduced by one hour to obtain local standard time of birth. From that obtain also I. S. T. by correction given in Lahiri's Tables of Ascendants or Indian Ephemeris. From the same book calculate the Sidereal Time at birth and obtain the Ascendant or Lagna for the latitude of the place.

Then calculate the longitude of planets. The longitudes are given in Signs (Rasis), degrees and minutes. 60 minutes make one degree and 30 degrees make one rasi. From I.S.T. obtained or derived for the birth time, calculate the longitudes of planet (*grahasphute*). The longitudes are given for 5-30 A.M. I.S.T. If the birth time be exactly 5-30 A.M. or very near to it, then take the given longitudes as those for birth. The method of calculating the longitudes for any hour of I.S.T. has been illustrated in the Example given in the Ephemeris. For this, different tables have been given and the use of the log tables has also been illustrated.

Now the planets are to be placed in the birth chart. The first figure in the longitude of a planet indicates the Rasi or Sign. For example if it is zero, place the planet in Mesha or Aries, if 1 place it in Vrisha or Tauras, 2 in Mithuna or Gemini, 3 in Karkata or Cancer and so on. The Ascendant or Lagna will have to be placed in the birth chart in a similar way. This completes casting of the nativity. The *nakshatra* division in which the moon or the planet falls can be ascertaind from the table given for the purpose on page 93. The *tithi* at birth time can be determined from the difference of longitudes of the Moon and Sun utilising the table on p-83. For Yoga add the longitude of Sun to that of Moon and consult the table of nakshatra on page 93 from which the number of Yoga current at birth time would be obtained. Then the balance of dasa is to be calculated. For this take the longitude of Moon and enter the table on page 90 and find the balance of Vimsottari dasa at the time of birth. Then go on adding the period of dasa of subsequent planets to arrive at the present age. The longitude utilised for all the above purposes are the nirayana longitude as given in the Ephemeris. If ayanamsa is added to the nirayana longitude, then the Sayana longitude of the planet will be obtained which are, however, not required in casting of a nativity in the Indian system.

— *FINIS* —

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FROM 1971 TO 1981 A.D.

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Ganitācārya, Ganitakalānidhi

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PREFACE

The present Condensed Ephemeris Part VI-A covering the years from 1971 to 1975 A.D. is published in order to meet the demand from the public for copies of the Ephemeris for individual years subsequent to 1970, some of which have gone out of print.

In this edition of the series of Condensed Ephemeris some improved system has been followed in that the longitudes of planets have been given for alternate days i.e. at 2 days' interval instead of 4 days as in previous issues and that of Mercury for every day. This would no doubt facilitate the work of its users in finding the planets' positions for the desired moment more easily. The longitudes are given for 5-30 A.M. I.S.T. as in previous issues.

ASTRO-RESEARCH BUREAU
CALCUTTA
29th June 1976
742276

N. C. LAHIRI

SECOND EDITION

This complete edition of Condensed Ephemeris Part VI covering as usual the full period of eleven years from 1971 to 1981 A.D. generally follows the arrangement of the earlier parts. The longitudes have been given at intervals of 2 days instead of their 4 day positions. Those of Moon and Mercury are given daily.

Astro-Research Bureau
Calcutta, 17 April, 1981.
877081

A. K. LAHIRI

Reprinted : March, 1985
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LOCAL MEAN TIME OF SUNRISE AND SUNSET

Date	Sunrise					Mid-day	Sunset				
	0°	10°	20°	30°	35°		0°	10°	20°	30°	35°
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	5 59	6 17	6 35	6 56	7 08	12 03	6 07	5 50	5 31	5 10	4 58
8	6 03	6 19	6 37	6 57	7 09	12 07	6 10	5 54	5 36	5 16	5 05
16	6 06	6 22	6 38	6 57	7 08	12 10	6 14	5 58	5 42	5 23	5 12
24	6 08	6 23	6 38	6 55	7 04	12 12	6 16	6 02	5 47	5 30	5 21
Feb. 1	6 10	6 23	6 36	6 51	6 59	12 14	6 18	6 05	5 52	5 37	5 29
9	6 11	6 21	6 33	6 45	6 53	12 14	6 18	6 07	5 56	5 44	5 36
17	6 11	6 19	6 28	6 38	6 45	12 14	6 18	6 09	6 00	5 50	5 44
25	6 10	6 16	6 23	6 31	6 35	12 13	6 17	6 10	6 03	5 56	5 52
Mar. 5	6 08	6 13	6 17	6 23	6 25	12 12	6 15	6 12	6 07	6 02	5 59
13	6 06	6 09	6 11	6 13	6 14	12 10	6 13	6 11	6 09	6 07	6 06
21	6 04	6 04	6 04	6 03	6 03	12 07	6 11	6 11	6 11	6 12	6 12
29	6 02	5 59	5 57	5 53	5 52	12 05	6 08	6 11	6 14	6 17	6 19
Apr. 6	5 59	5 55	5 50	5 44	5 40	12 03	6 06	6 11	6 16	6 21	6 25
14	5 57	5 50	5 43	5 35	5 30	12 00	6 04	6 11	6 18	6 26	6 31
22	5 55	5 46	5 37	5 26	5 20	11 59	6 02	6 11	6 20	6 31	6 38
30	5 54	5 43	5 32	5 19	5 11	11 57	6 01	6 11	6 23	6 36	6 44
May 8	5 53	5 41	5 27	5 12	5 03	11 56	6 00	6 12	6 26	6 41	6 50
16	5 53	5 39	5 24	5 06	4 56	11 56	6 00	6 14	6 29	6 47	6 57
24	5 53	5 38	5 21	5 02	4 51	11 57	6 00	6 16	6 33	6 52	7 03
June 1	5 54	5 38	5 20	4 59	4 47	11 58	6 01	6 18	6 36	6 56	7 08
9	5 55	5 38	5 20	4 58	4 46	11 59	6 03	6 20	6 39	7 00	7 13
17	5 57	5 39	5 20	4 58	4 45	12 01	6 04	6 22	6 41	7 03	7 16
25	5 59	5 41	5 22	5 00	4 47	12 02	6 06	6 24	6 43	7 05	7 18
July 3	6 01	5 43	5 24	5 03	4 51	12 04	6 08	6 25	6 43	7 05	7 18
11	6 03	5 45	5 27	5 06	4 54	12 05	6 09	6 25	6 43	7 04	7 16
19	6 03	5 47	5 30	5 11	4 59	12 06	6 10	6 25	6 42	7 01	7 13
27	6 03	5 48	5 33	5 15	5 05	12 06	6 10	6 24	6 39	6 57	7 07
Aug. 4	6 02	5 50	5 36	5 20	5 11	12 06	6 09	6 22	6 36	6 51	7 00
12	6 02	5 51	5 39	5 25	5 17	12 05	6 08	6 19	6 31	6 44	6 52
20	6 00	5 51	5 41	5 30	5 23	12 03	6 07	6 16	6 25	6 36	6 43
28	5 58	5 51	5 43	5 34	5 29	12 01	6 05	6 12	6 19	6 28	6 33
Sept. 5	5 56	5 50	5 45	5 39	5 35	11 59	6 02	6 06	6 12	6 18	6 22
13	5 53	5 50	5 47	5 43	5 41	11 56	5 59	6 01	6 04	6 08	6 10
21	5 50	5 49	5 48	5 47	5 47	11 53	5 56	5 57	5 58	5 59	5 59
29	5 47	5 49	5 50	5 52	5 53	11 51	5 54	5 52	5 50	5 49	5 48
Oct. 7	5 45	5 48	5 52	5 56	5 59	11 48	5 51	5 47	5 43	5 39	5 36
15	5 43	5 48	5 54	6 01	6 05	11 46	5 49	5 43	5 37	5 30	5 26
23	5 41	5 49	5 58	6 07	6 12	11 44	5 48	5 40	5 31	5 22	5 16
31	5 40	5 50	6 01	6 13	6 20	11 44	5 47	5 37	5 26	5 14	5 07
Nov. 8	5 40	5 52	6 05	6 19	6 27	11 44	5 47	5 35	5 23	5 08	5 00
16	5 41	5 55	6 09	6 26	6 35	11 45	5 48	5 35	5 20	5 04	4 54
24	5 43	5 58	6 14	6 32	6 43	11 47	5 50	5 35	5 19	5 01	4 50
Dec. 2	5 46	6 02	6 19	6 39	6 50	11 49	5 53	5 37	5 20	5 00	4 48
10	5 49	6 06	6 24	6 45	6 57	11 53	5 56	5 39	5 21	5 01	4 49
18	5 53	6 10	6 29	6 50	7 02	11 56	6 00	5 43	5 24	5 03	4 51
26	5 57	6 14	6 33	6 54	7 06	12 00	6 04	5 47	5 28	5 07	4 55
Jan. 3	6 01	6 18	6 36	6 56	7 08	12 04	6 08	5 51	5 33	5 12	5 00

The timings relate to the visibility of the upper limb of the Sun on the horizon, and as such include refraction and limb-corretion amounting to a total of about 3½ mins. (3 mins. for 0° or 10° lat. and 4 mins. for 30° or 35° lat.) For this reason the above times have been obtained by *diminishing* the calculated figures by the above amount for sunrise and *increasing* for sunset.

The L. M. T. of rise and set for intermediate latitudes and dates may be obtained by simple proportion. Thereafter the timings can be converted into I.S.T. by inverse application of the local time correction for the place.

Example of a Foreign City

Date : 22nd June 1974, Saturday.
Time : 9-00 p.m. Local Standard Time.
Place : Mauritius (Indian Ocean).
Lat. 20° 17′ S, Long. 57° 33′ E.

As the place falls in the Time Zone of $+4h$ which is the standard time of the country, G.M.T. of the moment is thus less by $4^h\ 0^m$ (i.e. G.M.T. is 9-00 p.m. *minus* 4-0=5-00 p.m. of 22 June) and I.S.T. is in advance by $1^h\ 30^m$ (i.e. I.S.T. is 9-00 p.m. *plus* 1-30 =10-30 p.m. of 22 June.).

As the place is in the east of Greenwich, the L.M.T. of the moment is more* than G.M.T. by the time-equivalent of the longitude, i.e. by $3^h50^m12^s$ $(57°33' \times 4 = 230^m\ 12^s)$. Hence the L.M.T. as obtained from G.M.T. is 5-00 p.m. *plus* 3^h50^m=8-50 p.m. nearly of 22. 6. 74. This can also be obtained by applying the L.M.T. correction of -10^m to 9-00 p.m.

So time is 9-00 p.m. of 22 June..........Local Standard Time.
5-00 p.m. „ G.M.T. or U.T.
8-50 p.m. „ L.M.T. (for calculation of ascendant)
10-30 p.m. of 22 June. I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for 12*h* noon L.M.T. of 22 June 1974 at Mauritius is *h* 5-59-56 (p. 76)+ 0^m18^s (Corr. for 1974)+16*s* (Corr. for Mauritius)=*h* 6-00-30.

∴ Sidereal Time for 8-50 p.m. L.M.T.
=*h* 6-00-30+(*h* 8-50 + $1^m\ 29^s$)= 14-51-59

Hence the ascendant for Latitude 20°S17′ is obtained from author's Tables of Ascendants as 9^s 23° 30′ − 0°30′ (Corr. for 1974)=9^s23° 00′ i.e., Makara 23°00′. From the short table given on page 80 of the annual ephemeris, it is seen that the ascendant Makara begins on 22 June. at 20° S latitude at *h* 20-16 − 72*m*=19 − 04 i.e. 7-04 p.m. L.M.T. which confirms the above result.

Planets—To be calculated for 10-30 p.m. I.S.T. of 22.6.74 which moment is *h* 17-00 after 5-30 a.m. I.S.T. of 22.6.74. The Moon is found for this epoch at 3^s 01° 49′+10° 35′=3^s 12° 24′ (Karkata 12°24′)

Similarly the positions of other planets are also to be obtained for the above hour of I.S.T.

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*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS

FOR ELEVEN YEARS

FROM 1971 TO 1981 A.D.
" 1892-93 " 1902-03 ŚAKA ERA
" 2027-28 " 2037-38 SAMVAT ERA
" 1377-78 " 1387-88 (B.S.) BENGALI SAN
" 1146-47 " 1156-57 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Saṁvat era.
Samvat era " with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat " with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era " on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5, after which the next year of Fusli begins. Hindi months begin from the date after full moon a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are the same as given in author's Advance Ephemeris.

The beginning dates of Saka, Samvat (two kinds), Bengali and Kollam eras and the Barhaspatya Varsa have been given for each year.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant 0*h* U.T. i.e. 0*h* G.M.T. Greenwich mean midnight or 5-30 A.M. Indian Standard Time (I.S.T.) or 5-53-30 A.M. Calcutta local time, which is also the same as 4-51-20 A.M. Bombay local time, and 5-20-59 A.M. Madras local time.

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of two days and those of Moon and Mercury have been given for each day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way: Vaiśākha—1, Jyaiṣṭha—2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6, Kārtika—7, Agrahāyana—8, Pauṣa—9, Māgha—10, Phālguna—11 & Chaitra—12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāṅgas* computed on modern methods. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e. mala* or *adhika māsa*.

The *sudi* half of the month begins when the number of the *tithi* is 1, and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi.*

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi	and	1	10	Māgha	sudi or sukla
16	10	Phālguna	,,	,,	1	11	Phālguna	,,
16	11	Chaitra	,,	,,	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	,,	,,	1	1	Vaisākha	,,
16	1	Jyaistha	,,	,,	1	2	Jyaistha	,,
16	2	Asādha	,,	,,	1	3	Asādha	,,
16	3	Srāvana	,,	,,	1	4	Srāvana	,,
16	4	Bhādra	,,	,,	1	5	Bhādra	,,
16	5	Asvina (N.Y.)	,,	,,	1	6	Asvina	,,
16	6	Kārtika	,,	,,	1	7	Kārtika	,, (new year)
16	7	Agrahā	,,	,,	1	8	Mārga	,,
16	8	Pāusa	,,	,,	1	9	Pāusa	,,

The first figure in the longitude of a planet indicates the sign or *rasi* of the *nirayaṇa* zodiac, *viz.* 0 means that the planet is in Mesa (Aries), 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc.. as shown in the last column of the symobls given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rasi.*

SYMBOLS

☉—Sun	*Ravi, Sūrya*
☽—Moon	*Candra*
☿—Mercury	*Budha*
♀—Venus	*Śukra, Bhṛgu*
♂—Mars	*Maṅgala, Kuja*
♃—Jupiter	*Bṛhaspati, Guru*
♄—Saturn	*Śani*
♅—Uranus or Herschel	*Indra, Prajāpati*
♆—Neptune	*Varuṇa*
♇—Pluto	*Rudra, Yama*
☊—Ascending Node or Dragon's head	*Rāhu*
☋—D. Node, Dragon's tail	*Ketu*
⊕—Earth	*Pṛthivī*

♈—Aries	0	*Meṣa*
♉—Taurus	1	*Vṛṣa*
♊—Gemini	2	*Mithuna*
♋—Cancer	3	*Karkata*
♌—Leo	4	*Siṁha*
♍—Virgo	5	*Kanyā*
♎—Libra	6	*Tulā*
♏—Scorpio	7	*Vṛścika*
♐—Sagittarius	8	*Dhanus*
♑—Capricorn	9	*Makara*
♒—Aquarius	10	*Kumbha*
♓—Pisces	11	*Mina*

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

$$\text{Standard time} = \text{Local time} - 4\,(\text{E. Long.} - 82^\circ\,30')\ \text{mins. of time}$$

$$\text{or} \quad = \text{Local time} + 4\,(82^\circ\,30' - \text{E. Long.})\ \text{mins. of time.}$$

Afterwards the old Railway time, the same as the local time of Madras ($5^h\ 21^m$ ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is *5h 30m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October, 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus *6h 30m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. From 1st Sept. 1947, Indian Standard Time was introduced all over India Other changes of timings during the war period and afterwards are noted below :—

		Reduction to I.S.T.
In Calcutta — before 1st Oct., 1941 ...	Calcutta time	—*0h 23m*
In whole of Bengal from 1-10-41 to 14-5-42 ...	Bengal time	—*1h 0m*
" " " 15-5-42 to 31-8-42 ...	I. S. T.	*0h 0m*
" " " 1-9-42 to 31-8-47 ...	Bengal time	—*1h 0m*
In West Bengal since 1st September, 1947 ...	I.S.T.	*0h 0m*
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45, and Bihar from 1-12-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time (otherwise I.S.T) ...	...	—*1h 0m*

East Pakistan observed Bengal time for civil purposes and Pakistan standard time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51. From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is *30m* more than I.S.T. and West Pakistan (now Pakistan) standard time is *30m* less than I.S.T.

1971 A.D. Longitude of Moon CONDENSED

Saka era 1892-93, Samvat 2027-28 (Mar. 27, Oct. 20), B.S. 1377-78 (Apr. 15), Kollam era 1146-47 (Aug. 17), 45 Virodhakrit (Mar. 27, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ठ) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.27	11 9	7 22 38	8 6 32	8 20 43	9 5 6	9 19 35	10 4 4	10 18 28
Jan. 3	18 9	11 2 45	11 16 51	0 0 48	0 14 32	0 28 6	1 11 27	1 24 36
10	25 9	2 7 32	2 20 15	3 2 44	3 15 1	3 27 6	4 9 3	4 20 53
17	3 10	5 2 40	5 14 29	5 26 25	6 8 33	6 20 57	7 3 42	7 16 51
24	10 10	8 0 26	8 14 27	8 28 51	9 13 33	9 28 26	10 13 22	10 28 13
31	17 10	11 12 52	11 27 15	0 11 18	0 25 2	1 8 26	1 21 32	2 4 22
Feb. 7	24 10	2 16 58	2 29 21	3 11 34	3 23 37	4 5 34	4 17 26	4 29 15
14	1 11	5 11 3	5 22 54	6 4 52	6 16 59	6 29 20	7 11 59	7 25 1
21	8 11	8 8 28	8 22 22	9 6 43	9 21 27	10 6 29	10 21 41	11 6 52
28	15 11	11 21 53	0 6 36	0 20 56	1 4 49	1 18 17	2 1 20	2 14 1
Mar. 7	22 11	2 26 25	3 8 36	3 20 37	4 2 30	4 14 21	4 26 9	5 7 59
14	29 11	5 19 50	6 1 47	6 13 50	6 26 2	7 8 25	7 21 4	8 4 1
21	7 12	8 17 19	9 1 1	9 15 8	9 29 41	10 14 34	10 29 43	11 14 57
28	14 12	0 0 7	0 15 3	0 29 36	1 13 41	1 27 17	2 10 25	2 23 7
Apr. 4	21 12	3 5 29	3 17 35	3 29 30	4 11 20	4 23 7	5 4 55	5 16 48
11	28 12	5 28 46	6 10 51	6 23 5	7 5 29	7 18 3	8 0 49	8 13 49
18	4 1	8 27 5	9 10 40	9 24 36	10 8 52	10 23 28	11 8 19	11 23 20
25	11 1	0 8 21	0 23 12	1 7 45	1 21 54	2 5 35	2 18 47	3 1 33
May 2	18 1	3 13 57	3 26 5	4 8 0	4 19 49	5 1 37	5 13 28	5 25 25
9	25 1	6 7 32	6 19 48	7 2 17	7 14 56	7 27 47	8 10 50	8 24 3
16	1 2	9 7 29	9 21 8	10 5 0	10 19 6	11 3 25	11 17 56	0 2 34
23	8 2	0 17 12	1 1 44	1 16 2	2 0 1	2 13 36	2 26 47	3 9 33
30	15 2	3 21 59	4 4 8	4 16 6	4 27 57	5 9 47	5 21 40	6 3 42
June 6	22 2	6 15 56	6 28 23	7 11 5	7 24 2	8 7 14	8 20 38	9 4 14
13	29 2	9 17 59	10 1 52	10 15 53	10 29 59	11 14 11	11 28 26	0 12 41
20	5 3	0 26 54	1 10 59	1 24 53	2 8 31	2 21 50	3 4 50	3 17 30
27	12 3	3 29 53	4 12 2	4 24 0	5 5 52	5 17 43	5 29 38	6 11 42
July 4	19 3	6 24 0	7 6 33	7 19 25	8 2 36	8 16 6	8 29 53	9 13 54
11	26 3	9 28 4	10 12 21	10 26 41	11 10 59	11 25 14	0 9 22	0 23 23
18	1 4	1 7 14	1 20 54	2 4 21	2 17 34	3 0 32	3 13 15	3 25 43
25	8 4	4 7 59	4 20 3	5 1 59	5 13 51	5 25 42	6 7 37	6 19 41
Aug. 1	15 4	7 1 57	7 14 31	7 27 26	8 10 43	8 24 24	9 8 27	9 22 49
8	22 4	10 7 25	10 22 8	11 6 53	11 21 31	0 5 59	0 20 12	1 4 8
15	29 4	1 17 47	2 1 9	2 14 14	2 27 5	3 9 42	3 22 7	4 4 21
22	5 5	4 16 27	4 28 25	5 10 18	5 22 9	6 3 59	6 15 54	6 27 56
29	12 5	7 10 9	7 22 39	8 5 30	8 18 45	9 2 25	9 16 33	10 1 5
Sept. 5	19 5	10 15 58	11 1 2	11 16 10	0 1 11	0 15 58	1 0 24	1 14 26
12	26 5	1 28 2	2 11 16	2 24 8	3 6 44	3 19 5	4 1 16	4 13 18
19	2 6	4 25 15	5 7 8	5 18 59	6 0 50	6 12 42	6 24 38	7 6 41
26	9 6	7 18 53	8 1 20	8 14 5	8 27 11	9 10 44	9 24 45	10 9 13
Oct. 3	16 6	10 24 6	11 9 17	11 24 37	0 9 54	0 24 57	1 9 38	1 23 50
10	23 6	2 7 34	2 20 49	3 3 39	3 16 8	3 28 21	4 10 24	4 22 19
17	30 6	5 4 10	5 16 1	5 27 52	6 9 45	6 21 43	7 3 45	7 15 54
24	6 7	7 28 11	8 10 41	8 23 24	9 6 26	9 19 50	10 3 38	10 17 53
31	13 7	11 2 32	11 17 33	0 2 46	0 18 2	1 3 8	1 17 56	2 2 18
Nov. 7	20 7	2 16 9	2 29 31	3 12 26	3 24 57	4 7 10	4 19 11	5 1 4
14	27 7	5 12 54	5 24 44	6 6 37	6 18 36	7 0 42	7 12 55	7 25 17
21	4 8	8 7 47	8 20 28	9 3 21	9 16 28	9 29 51	10 13 32	10 27 34
28	11 8	11 11 55	11 26 34	0 11 25	0 26 21	1 11 13	1 25 51	2 10 10
Dec. 5	18 8	2 24 3	3 7 29	3 20 29	4 3 5	4 15 23	4 27 26	5 9 21
12	25 8	5 21 11	6 3 3	6 14 59	6 27 3	7 9 17	7 21 43	8 4 21
19	3 9	8 17 10	9 0 12	9 13 25	9 26 50	10 10 25	10 24 13	11 8 12
26	10 9	11 22 22	0 6 41	0 21 6	1 5 33	1 19 56	2 4 10	2 13 10
Jan. 2	17 9	2 1 51	3 15 11	3 28 9	4 10 48	4 23 8	5 5 15	5 17 13

Longitudes of Planets

Ayanamsa on 1st Jan : 23° 27′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	4	9	0R22 30	7 4 08	6 22 36	8 16 28	7 1 20	8R 8s33	8 7r28
3	7	9	0 22 26	7 4 30	6 23 52	8 18 30	7 3 01	8 6 32	8 5 46
5	9	9	0 22 23	7 4 53	6 25 08	8 20 32	7 4 44	8 5 10	8 4 44
7	11	9	0 22 21	7 5 15	6 26 24	8 22 34	7 6 30	8 4 28	8D4 22
9	13	9	0 22 19	7 5 36	6 27 40	8 24 37	7 8 19	8 4 24	8 4 35
11	15	9	0 22 17	7 5 58	6 28 56	8 26 39	7 10 11	8 4 54	8 5 19
13	17	9	0 22 16	7 6 19	7 0 12	8 28 41	7 12 04	8 5 51	8 6 29
15	19	9	0 22 15	7 6 39	7 1 27	9 0 43	7 14 00	8 7 12	8 7 59
17	20	9	0D22 15	7 6 59	7 2 43	9 2 46	7 15 58	8 8 50	8 9 45
19	22	9	0 22 15	7 7 19	7 3 59	9 4 48	7 17 58	8 10 44	8 11 45
21	24	9	0 22 15	7 7 38	7 5 15	9 6 50	7 19 59	8 12 50	8 13 56
23	26	9	0 22 16	7 7 57	7 6 30	9 8 52	7 22 02	8 15 05	8 16 16
25	28	9	0 22 18	7 8 16	7 7 46	9 10 54	7 24 06	8 17 29	8 18 44
27	1	10	0 22 20	7 8 34	7 9 01	9 12 56	7 26 12	8 20 00	8 21 17
29	3	10	0 22 22	7 8 52	7 10 17	9 14 58	7 28 19	8 22 36	8 23 56
31	5	10	0 22 25	7 9 09	7 11 32	9 17 00	8 0 27	8 25 17	8 26 40
Feb. 2	7	10	0 22 28	7 9 25	7 12 47	9 19 02	8 2 36	8 28 03	8 29 28
4	9	10	0 22 32	7 9 41	7 14 02	9 21 04	8 4 46	9 0 53	9 2 20
6	11	10	0 22 36	7 9 57	7 15 17	9 23 05	8 6 57	9 3 47	9 5 15
8	13	10	0 22 40	7 10 12	7 16 32	9 25 07	8 9 09	9 6 44	9 8 14
10	15	10	0 22 45	7 10 26	7 17 47	9 27 08	8 11 22	9 9 45	9 11 17
12	17	10	0 22 51	7 10 40	7 19 02	9 29 10	8 13 36	9 12 49	9 14 23
14	19	10	0 22 57	7 10 53	7 20 17	10 1 11	8 15 50	9 15s57	9 17 32
16	21	10	0 23 03	7 11 06	7 21 32	10 3 12	8 18 05	9 19 08	9 20 45
18	23	10	0 23 09	7 11 18	7 22 46	10 5 13	8 20 21	9 22 22	9 24 01
20	24	10	0 23 16	7 11 30	7 24 01	10 7 14	8 22 37	9 25 41	9 27 21
22	27	10	0 23 24	7 11 40	7 25 15	10 9 15	8 24 54	9 29 02	10 0 45
24	29	10	0 23 32	7 11 51	7 26 29	10 11 16	8 27 11	10 2 28	10 4 12
26	1	11	0 23 40	7 12 00	7 27 43	10 13 17	8 29 29	10 5 57	10 7 44
28	4	11	0 23 48	7 12 09	7 28 57	10 15 18	9 1 48	10 9 31	10 11 19
Mar. 2	6	11	0 23 57	7 12 17	8 0 11	10 17 18	9 4 06	10 13 08	10 14 59
4	8	11	0 24 06	7 12 25	8 1 24	10 19 18	9 6 26	10 16 50	10 18 42
6	10	11	0 24 16	7 12 32	8 2 38	10 21 19	9 8 45	10 20 36	10 22 30
8	12	11	0 24 26	7 12 38	8 3 51	10 23 19	9 11 05	10 24 25	10 26 21
10	14	11	0 24 36	7 12 43	8 5 04	10 25 19	9 13 25	10 28 17	11 0 15
12	15	11	0 24 46	7 12 48	8 6 17	10 27 18	9 15 46	11 2 12	11 4 11
14	17	11	0 24 57	7 12 51	8 7 30	10 29 18	9 18 06	11 6 09	11 8 07
16	19	11	0 25 08	7 12 55	8 8 42	11 1 18	9 20 28	11 10 05	11 12r03
18	21	11	0 25 19	7 12 57	8 9 55	11 3 17	9 22 49	11 14 00	11 15 55
20	23	11	0 25 31	7 12 59	8 11 07	11 5 16	9 25 11	11 17 49	11 19 41
22	25	11	0 25 43	7R13 00	8 12 19	11 7 16	9 27 32	11 21 30	11 23 17
24	27	11	0 25 55	7 13 00	8 13 30	11 9 15	9 29 55	11 25 00	11 26 40
26	30	11	0 26 07	7 12 59	8 14 42	11 11 14	10 2 17	11 28 15	11 29 46
28	2	12	0 26 20	7 12 58	8 15 53	11 13 13	10 4 39	0 1 12	0 2 32
30	4	12	0 26 33	7 12 56	8 17 03	11 15 11	10 7 02	0 3 47	0 4 56
1	6	12	0 26 46	7 12 53	8 18 14	11 17 10	10 9 25	0 5 59	0 6 55
3	8	12	0 26 59	7 12 49	8 19 24	11 19 08	10 11 48	0 7 44	0 8 27
5	10	12	0 27 13	7 12 45	8 20 34	11 21 06	10 14 11	0 9 03	0 9 32
7	12	12	0 27 26	7 12 40	8 21 43	11 23 05	10 16 34	0 9 54	0 10 09
9	14	12	0 27 40	7 12 34	8 22 52	11 25 02	10 18 58	0R10 17	0 10 18
11	16	12	0 27 54	7 12 28	8 24 01	11 27 00	10 21 21	0 10 13	0 10s08
13	18	12	0 28 08	7 12 21	8 25 09	11 28 58	10 23 45	0 9 45	0 9 22
15	19	12	0 28 22	7 12 13	8 26 17	0 0 55	10 26 09	0 8 55	0 8 23
17	21	12	0 28 37	7 12 05	8 27 25	0 2 53	10 28 33	0 [illegible] 48	0 7 09

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1971 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 27′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 17	21	12	0 28 37	7R12 05	8 27 25	0 2 53	10 28 33	0R 7s48	0 7 09
19	23	12	0 28 51	7 11 55	8 28 32	0 4 50	11 0 57	0 6 29	0 5 47
21	26	12	0 29 06	7 11 46	8 29 38	0 6 47	11 3 21	0 5 05	0 4 22
23	28	12	0 29 21	7 11 35	9 0 44	0 8 44	11 5 45	0 3 41	0 3 01
25	30	12	0 29 36	7 11 25	9 1 50	0 10 41	11 8 09	0 2 24	0 1 50
27	3	1	0 29 51	7 11 13	9 2 55	0 12 38	11 10 34	0 1 19	0 0 51
29	5	1	1 0 06	7 11 01	9 3 59	0 14 35	11 12 58	0 0 28	0 0 10
May 1	7	1	1 0 21	7 10 49	9 5 02	0 16 32	11 15 23	11 29r56	11 29 46
3	9	1	1 0s36	7 10 36	9 6 05	0 18 28	11 17 47	11D29 42	11 29 42
5	10	1	1 0 52	7 10 23	9 7 07	0 20 24	11 20 12	11 29 47	11 29 57
7	12	1	1 1 07	7 10 09	9 8 09	0 22 21	11 22 37	0 0 12	0 0 31
9	14	1	1 1 23	7 9 55	9 9 09	0 24 17	11 25 01	0 0 54	0 1 22
11	16	1	1 1 38	7 9 41	9 10 09	0 26 13	11 27 26	0 1 54	0 2 29
13	18	1	1 1 54	7 9 26	9 11 08	0 28 08	11 29 51	0 3 09	0 3 53
15	20	1	1 2 09	7 9 11	9 12 07	1 0 04	0 2 16	0 4 40	0 5 30
17	22	1	1 2 25	7 8 56	9 13 04	1 2 00	0 4 41	0 6 24	0 7 21
19	24	1	1 2 40	7 8 41	9 14 00	1 3 55	0 7 06	0 8 22	0 9 25
21	27	1	1 2 56	7 8 26	9 14 55	1 5 51	0 9 31	0 10 31	0 11 40
23	29	1	1 3 11	7 8 11	9 15 49	1 7 46	0 11 57	0 12 52	0 14 07
25	1	2	1 3 27	7 7 55	9 16 42	1 9 42	0 14 22	0 15 24	0 16 44
27	3	2	1 3 42	7 7 40	9 17 33	1 11 37	0 16 47	0 18 07	0 19 32
29	5	2	1 3 57	7 7 25	9 18 23	1 13 32	0 19 12	0 21 00	0 22 30
31	7	2	1 4 13	7 7 10	9 19 12	1 15 27	0 21 38	0 24 03	0 25 38
June 2	9	2	1 4 28	7 6 55	9 19 59	1 17 22	0 24 03	0 27 16	0 28 56
4	11	2	1 4 43	7 6 40	9 20 45	1 19 17	0 26 29	1 0 38	1 2 24
6	13	2	1 4r58	7 6 26	9 21 29	1 21 12	0 28 54	1 4 11	1 6 01
8	14	2	1 5 14	7 6 12	9 22 12	1 23 07	1 1 20	1 7 53	1 9 48
10	17	2	1 5 29	7 5 58	9 22 52	1 25 02	1 3 45	1 11s45	1 13 44
12	19	2	1 5 43	7 5 44	9 23 31	1 26 56	1 6 11	1 15 45	1 17 48
14	21	2	1 5 58	7 5 31	9 24 08	1 28 51	1 8 37	1 19 53	1 22 00
16	23	2	1 6 13	7 5 18	9 24 43	2 0 45	1 11 03	1 24 08	1 26 17
18	25	2	1 6 27	7 5 06	9 25 16	2 2 40	1 13 29	1 28 28	2 0 39
20	27	2	1 6 42	7 4 54	9 25 47	2 4 35	1 15 55	2 2 50	2 5 02
22	30	2	1 6 56	7 4 43	9 26 15	2 6 29	1 18 21	2 7 14	2 9 25
24	2	3	1 7 10	7 4 32	9 26 41	2 8 24	1 20 47	2 11 36	2 13 45
26	4	3	1 7 24	7 4 22	9 27 04	2 10 18	1 23 13	2 15 54	2 18 02
28	5	3	1 7 38	7 4 12	9 27 24	2 12 13	1 25 39	2 20 08	2 22 12
30	7	3	1 7 52	7 4 03	9 27 42	2 14 07	1 28 06	2 24r15	2 26 16
July 2	9	3	1 8 05	7 3 55	9 27 57	2 16 01	2 0 32	2 28 15	3 0 12
4	11	3	1 8 18	7 3 47	9 28 10	2 17 56	2 2 58	3 2 07	3 4 00
6	13	3	1 8 31	7 3 40	9 28 19	2 19 50	2 5 25	3 5 52	3 7 41
8	15	3	1 8 44	7 3 34	9 28 26	2 21 45	2 7 52	3 9 28	3 11 13
10	17	3	1 8 57	7 3 28	9R28 29	2 23 39	2 10 18	3 12 56	3 14 37
12	19	3	1 9 09	7 3 23	9 28 29	2 25 33	2 12 45	3 16 17	3 17 54
14	22	3	1 9 22	7 3 19	9 28 27	2 27 28	2 15 12	3 19 29	3 21 02
16	24	3	1 9 34	7 3 15	9 28 21	2 29 22	2 17 39	3 22 33	3 24 02
18	26	3	1 9 45	7 3 12	9 28 12	3 1 17	2 20 06	3 25 29	3 26 53
20	28	3	1 9 57	7 3 10	9 28 00	3 3 11	2 22 33	3 28 16	3 29 37
22	30	3	1 10 08	7 3 09	9 27 45	3 5 06	2 25 00	4 0 55	4 2 11
24	2	4	1 10 19	7D3 08	9 27 28	3 7 00	2 27 27	4 3 25	4 4 36
26	4	4	1 10 29	7 3 08	9 27 07	3 8 55	2 29 55	4 5 45	4 6 51
28	6	4	1 10 40	7 3 09	9 26 45	3 10 50	3 2 22	4 7 55	4 8 56
30	8	4	1 10 50	7 3 10	9 26 20	3 12 44	3 4 50	4 9 54	4 10 49
Aug. 1	9	4	1 11 00	7 3 13	9 25 53	3 14 39	3 7 18	4 11 41	4 12 30

Longitudes of Planets

***Ayanamsa* on 1st Jan. : 23° 27′ 17″**

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	9 4	1 11 00	7 3 13	9R25 53	3 14 39	3 7 18	4 11 41	4 12 30
3	11 4	1 11 09	7 3 16	9 25 25	3 16 34	3 9 45	4 13 16	4 13 58
5	13 4	1 11 18	7 3 19	9 24 55	3 18 29	3 12s13	4 14 36	4 15 10
7	16 4	1 11 27	7 3 24	9 24 24	3 20 24	3 14 41	4 15 41	4 16 07
9	18 4	1 11 35	7 3 29	9 23 53	3 22 18	3 17 09	4 16 28	4 16 45
11	20 4	1 11 43	7 3 35	9 23 21	3 24 14	3 19 37	4 16 57	4R17 04
13	23 4	1 11 51	7 3 41	9 22 49	3 26 09	3 22 05	4 17 05	4 17s02
15	25 4	1 11 59	7 3 48	9 22 18	3 28 04	3 24 33	4 16 52	4 16 37
17	27 4	1 12 06	7 3 56	9 21 47	3 29 59	3 27 02	4 16 17	4 15 51
19	29 4	1 12 12	7 4 05	9 21 18	4 1 55	3 29 30	4 15 20	4 14 43
21	1 5	1 12 19	7 4 14	9 20 49	4 3 50	4 1 58	4 14 02	4 13 17
23	2 5	1 12 24	7 4 24	9 20 23	4 5 46	4 4 27	4 12 29	4 11 37
25	4 5	1 12 30	7 4 34	9 19 59	4 7 41	4 6 56	4 10 44	4 9s49
27	6 5	1 12 35	7 4 45	9 19 37	4 9 37	4 9s24	4 8 55	4 8 03
29	8 5	1 12 40	7 4 57	9 19 18	4 11 33	4 11 53	4 7 13	4 6 26
31	10 5	1 12 44	7 5 09	9 19 02	4 13 29	4 14 22	4 5 44	4 5 08
Sept. 2	12 5	1 12 48	7 5 22	9 18 48	4 15 25	4 16 51	4 4r38	4 4 15
4	14 5	1 12 51	7 5 36	9 18 38	4 17 21	4 19 19	4 4 01	4D3 54
6	16 5	1 12 54	7 5 50	9 18 31	4 19 18	4 21 48	4 3 56	4 4 07
8	19 5	1 12 57	7 6 01	9 18 26	4 21 14	4 24 17	4 4 27	4 4 56
10	21 5	1 12 59	7 6 19	9D18 26	4 23 10	4 26 46	4 5 33	4 6 18
12	23 5	1 13 01	7 6 35	9 18 28	4 25 07	4 29 16	4 7 11	4 8 12
14	25 5	1 13 02	7 6 51	9 18 33	4 27 04	5 1 45	4 9 20	4 10 34
16	27 5	1 13 03	7 7 08	9 18 42	4 29 01	5 4 14	4 11 54	4 13 19
18	29 5	1R13 04	7 7 25	9 18 54	5 0 58	5 6 43	4 14 49	4 16 23
20	1 6	1 13 04	7 7 42	9 19 09	5 2 55	5 9 12	4 18 01	4 19 41
22	3 6	1 13 03	7 8 00	9 19 27	5 4 52	5 11 42	4 21 24	4 23 09
24	4 6	1 13 02	7 8 19	9 19 48	5 6 50	5 14r11	4 24 56	4 26 44
26	6 6	1 13 01	7 8 38	9 20 12	5 8 47	5 16 41	4 28s32	5 0 21
28	8 6	1 12 59	7 8 57	9 20 38	5 10 45	5 19 10	5 2 11	5 4 00
30	10 6	1 12 57	7 9 17	9 21 08	5 12 43	5 21 39	5 5 50	5 7 39
Oct. 2	13 6	1 12 55	7 9 37	9 21 40	5 14 41	5 24 09	5 9 27	5 11 16
4	15 6	1 12 52	7 9 58	9 22 14	5 16 39	5 26 38	5 13 03	5 14 50
6	17 6	1 12 48	7 10 19	9 22 51	5 18 37	5 29 08	5 16 37	5 18 23
8	20 6	1 12 44	7 10 40	9 23 30	5 20 35	6 1 37	5 20 08	5 21 52
10	22 6	1 12 40	7 11 02	9 24 11	5 22 34	6 4 07	5 23 35	5 25 18
12	24 6	1 12 36	7 11 24	9 24 54	5 24 32	6 6 36	5 27 00	5 28 41
14	26 6	1 12 31	7 11 46	9 25 39	5 26 31	6 9 06	6 0 22	6 2 02
16	27 6	1 12 25	7 12 09	9 26 26	5 28 30	6 11 35	6 3 41	6 5 19
18	29 6	1 12 19	7 12 32	9 27 15	6 0 29	6 14 05	6 6 57	6 8 34
20	1 7	1 12 13	7 12 55	9 28 06	6 2 28	6 16 34	6 10 11	6 11 47
22	3 7	1 12 07	7 13 19	9 28 58	6 4 28	6 19 04	6 13 22	6 14 57
24	5 7	1 12 00	7 13 43	9 29 52	6 6 27	6 21 33	6 16 31	6 18 04
26	7 7	1 11 53	7 14 07	10 0 48	6 8 27	6 24 03	6 19 37	6 21 10
28	9 7	1 11 45	7 14 31	10 1 44	6 10 27	6 26 32	6 22 42	6 24 13
30	11 7	1 11 37	7 14 56	10 2 43	6 12 26	6 29 02	6 25 44	6 27r15
Nov. 1	13 7	1 11 29	7 15 21	10 3 42	6 14 26	7 1 31	6 28 45	7 0 14
3	16 7	1 11 21	7 15 46	10 4 43	6 16 26	7 4 01	7 1 43	7 3 11
5	18 7	1 11 13	7 16 11	10 5 44	6 18 27	7 6 30	7 4 39	7 6 07
7	20 7	1 11 04	7 16 37	10 6 47	6 20 27	7 9 00	7 7 33	7 9 00
9	22 7	1 10 55	7 17 02	10 7 51	6 22 27	7 11 29	7 10 25	7 11 50
11	24 7	1 10 46	7 17 28	10 8 56	6 24 28	7 13 59	7 13 14	7 14 37
13	26 7	1 10 36	7 17 54	10 10 01	6 26 29	7 16 28	7 16 00	7 17 21
15	28 7	1 10 27	7 18 20	10 11 08	6 28 29	7 18 58	7 18 42	7 20 01

1971 A.D. Longitudes of Planets CONDENSED

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	28	7	1 R 10 27	7 18 20	10 11 08	6 28 29	7 18 58	7 18 42	7 20 01
17	30	7	1 10 17	7 18 47	10 12 15	7 0 30	7 21 27	7 21 18	7 22 35
19	1	8	1 10 08	7 19 13	10 13 23	7 2 31	7 23 57	7 23 49	7 25 02
21	3	8	1 9 58	7 19 40	10 14 32	7 4 33	7 26 26	7 26 13	7 27 21
23	5	8	1 9 48	7 20 06	10 15 42	7 6 31	7 28 56	7 28 26	7 29 28
25	7	8	1 9 38	7 20 33	10 16 52	7 8 35	8 1 25	8 0 26	8 1 20
27	9	8	1 9 28	7 21s00	10 18 03	7 10 37	8 3 54	8 2 09	8 2 54
29	12	8	1 9 19	7 21 27	10 19 15	7 12 38	8 6 24	8 3 32	8 4 03
Dec 1	14	8	1 9 09	7 21 54	10 20 27	7 14 40	8 8 53	8 4 26	8 4 41
3	16	8	1 8 59	7 22 21	10 21 39	7 16 41	8 11 22	8R 4 47	8 4 43
5	18	8	1 8 49	7 22 48	10 22 52	7 18 43	8 13 51	8 4 29	8 4 03
7	20	8	1 8 40	7 23 15	10 24 06	7 20 45	8 16 20	8 3s26	8 2 37
9	22	8	1 8 30	7 23⊙42	10 25 20	7 22 47	8 18 49	8 1 39	8 0 31
11	24	8	1 8 21	7 24 09	10 26 34	7 24 48	8 21 18	7 29 16	7 27⊙56
13	26	8	1 8 12	7 24 36	10 27 49	7 26 51	8 23 47	7 26 33	7 25 10
15	28	8	1 8 03	7 25 04	10 29 04	7 28 53	8 26 16	7 23 51	7 22 37
17	30	8	1 7 54	7 25 31	11 0 19	8 0 55	8 29 45	7 21r31	7 20 34
19	2	9	1 7 46	7 25 58	11 1 35	8 2 57	9 1 14	7 19 47	7 19 12
21	4	9	1 7 37	7 26r25	11 2 51	8 4 59	9 3 43	7 18 47	7D 18 33
23	6	9	1 7 29	7 26 52	11 4 08	8 7 01	9 6 12	7 18 30	7 18 36
25	8	9	1 7 22	7 27 19	11 5 24	8 9 04	9 8 40	7 18 50	7 19 13
27	10	9	1 7 14	7 27 46	11 6 41	8 11 06	9 11 09	7 19 43	7 20 20
29	12	9	1 7 07	7 28 13	11 7 58	8 13 08	9 13 37	7 21 03	7 21 50
31	15	9	1 7 01	7 28 39	11 9 16	8 15 10	9 16 05	7 22 43	7 23 39
Jan. 2	17	9	1 6 54	7 29 06	11 10 33	8 17 13	9 18 33	7 24 39	7 25 43

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	10 0 51	10 2 30	5R 19 58	7 8 32	5R 6 15	23 27 17
February 1	10 0 05	10 0 52	5 20 01	7 9 19	5 6 00	23 27 22
March 1	10 0 09	9 29 23	5 19 21	7R 9 37	5 5 24	23 27 26
April 1	9 29 12	9 27 41	5 18 07	7 9 26	5 4 35	23 27 29
May 1	9 26 31	9 26 09	5 16 53	7 8 50	5 3 53	23 27 33
June 1	9 23 17	9 21 30	5 16 06	7 8 01	5 3 32	23 27 38
July 1	9 21 22	9 22 55	5D 16 03	7 7 18	5 D 3 40	23 27 43
August 1	9 20 59	9 21 16	5 16 49	7D 6 53	5 4 17	23 27 49
September 1	9 20 58	9 19 38	5 18 16	7 6 57	5 5 16	23 27 53
October 1	9 19 44	9 18 02	5 20 03	7 7 29	5 6 22	23 27 56
November 1	9 16 38	9 16 24	5 21 59	7 8 26	5 7 28	23 28 00
December 1	9 13 26	9 14 48	5 23 35	7 9 34	5 8 14	23 28 05
January 1	9 11 51	9 13 10	5 24 37	7 10 38	5R 8 34	23 28 11

Combustion or Heliacal Setting of Planets

Saturn :	From May 2 to June 6.
Jupiter :	From Nov. 27 to Dec. 21.
Mars :	— —
Venus :	From Aug. 6 to Sept. 24.
Mercury :	Up to Jan. 2 then from Feb. 14 to Mar. 17, Apr. 12 to May 1, June 10 to June 30, Aug. 14 to Sept. 2, Sept. 26 to Oct. 31, Dec. 7 to Dec. 17.

Retrogression of Planets

PLANET	RETROGRADE Date				Long.			DIRECT Date				Long.		
			h	m	s	°	'			h	m	s	°	'
Mercury	—		—			—		Jan.	8,	10	21	8	4	22
	Apr.	9,	22	48	0	10	18	May	3,	15	55	11	29	42
	Aug.	12,	24	58	4	17	5	Sept.	5,	11	28	4	3	54
	Dec.	3,	7	46	8	4	47	Dec.	22,	26	34	7	18	30
Venus	—		—			—		—		—			—	
Mars	July	11,	12	3	9	28	30	Sept.	9,	19	23	9	18	26
Jupiter	Mar.	23	17	4	7,	13	0	July	24,	24	37	7	3	8
Saturn	—		—			—		Jan.	15,	18	32	0	22	15
	Sept.	19,	7	40	1	13	4	—		—			—	
Uranus	Jan.	18,	12	42	5	20	6	June	17,	19	47	5	15	58
Neptune	Mar.	5,	23	26	7	9	37	Aug.	12,	20	41	7	6	50
Pluto	Jan.	1,	29	13	5	6	15	June	7,	21	13	5	3.	31

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
						Jan.	11	18	50	Māgha	Vadi
Jan.	26	28	25	Māgha	Sukla	Feb.	10	13	11	Phālguna	„
Feb.	25	15	19	Phālguna	„	Mar.	12	8	04	Caitra	„
Mar.	26	24	54	Caitra	„	Apr.	10	25	40	Vaiśakha	„
Apr.	25	9	32	Vaiśākha	„	May	10	16	54	Jyaiṣṭha	„
May	24	18	02	Jyaiṣṭha	„	June	9	5	34	Āṣāḍha	„
June	22	27	27	Āṣāḍha	„	July	8	16	07	Śrāvaṇa	„
July	22	14	45	Śravana	„	Aug.	6	25	12	Bhādra	„
Aug.	20	28	23	Bhādra	„	Sept.	5	9	33	Āśvina	„
Sept.	19	20	12	Āśvina	„	Oct.	4	17	50	Kārtika	„
Oct.	19	13	29	Kārtika	„	Nov.	2	26	50	Marga.	„
Nov.	18	7	16	Agrahā	„	Dec.	2	13	18	Pauṣa	„
Dec.	17	24	33	Pauṣa	„	Dec.	31	25	50	Mārga	„

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	12	27	Karkaṭa	on	July	16	21	24
Kumbha	on	Feb.	12	25	25	Sinha	on	Aug.	17	5	51
Mina	on	Mar.	14	22	19	Kanyā	on	Sept.	17	5	47
Mesa	on	Apr.	14	6	52	Tulā	on	Oct.	17	17	43
Vṛṣa	on	May	14	27	47	Vṛścika	on	Nov.	16	17	26
Mithuna	on	June	15	10	28	Dhanus	on	Dec.	16	8	00

1972 A.D. Longitude of Moon CONDENSED

Saka era 1893-94, Saṁvat 2028-29 (Mar. 16, Nov. 7), B. S. 1378-79 (Apr. 14), Kollam era 1147-48 (Aug. 16), 46 Paridhāvin (Mar. 16, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (स्प ☽ ५) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec.26	10 9	11 22 22	0 6 41	0 21 06	1 5 33	1 19 56	2 4 10	2 18 10
Jan. 2	17 9	3 1 51	3 15 11	3 28 09	4 10 48	4 23 08	5 5 15	5 17 13
9	24 9	5 29 05	6 10 58	6 22 55	7 5 02	7 17 21	7 29 55	8 12 46
16	2 10	8 25 54	9 9 19	9 22 58	10 6 50	10 20 52	11 5 00	11 19 12
23	9 10	0 3 24	0 17 35	1 1 42	1 15 41	1 29 38	2 13 21	2 26 53
30	16 10	3 10 11	3 23 15	4 6 02	4 18 55	5 0 54	5 13 01	5 24 59
Feb. 6	23 10	6 6 53	6 18 45	7 0 42	7 12 47	7 25 05	8 7 41	8 20 37
13	30 10	9 3 56	9 17 38	10 1 40	10 16 00	11 0 32	11 15 09	11 29 45
20	7 11	0 14 14	0 28 32	1 12 36	1 26 25	2 9 58	2 23 18	3 6 24
27	14 11	3 19 17	4 2 00	4 14 31	4 26 52	5 9 03	5 21 07	6 3 03
Mar. 5	21 11	6 14 56	6 26 48	7 8 43	7 20 45	8 3 00	8 15 32	8 28 25
12	28 11	9 11 44	9 25 30	10 9 44	10 24 21	11 9 16	11 24 20	0 9 22
19	5 12	0 21 14	1 8 49	1 23 01	2 6 51	2 20 18	3 3 25	3 16 15
26	12 12	3 28 51	4 11 16	4 23 32	5 5 40	5 17 43	5 29 41	6 11 35
Apr. 2	19 12	6 23 27	7 5 19	7 17 14	7 29 16	8 11 28	8 23 56	9 6 44
9	26 12	9 19 57	10 3 38	10 17 49	11 2 29	11 17 30	0 2 45	0 18 04
16	3 1	1 3 14	1 18 05	2 2 32	2 16 31	3 0 03	3 13 09	3 25 55
23	10 1	4 8 23	4 20 38	5 2 44	5 14 44	5 26 39	6 8 33	6 20 25
30	17 1	7 2 18	7 14 14	7 26 13	8 8 19	8 20 34	9 3 03	9 15 50
May 7	24 1	9 28 58	10 12 32	10 24 34	11 11 03	11 25 56	0 11 06	0 26 24
14	31 1	1 11 37	1 26 35	2 11 11	2 25 19	3 8 59	3 22 11	4 4 59
21	7 2	4 17 28	4 29 41	5 11 43	5 23 39	6 5 32	6 17 24	6 29 17
28	14 2	7 11 14	7 23 16	8 5 24	8 17 40	9 0 05	9 12 44	9 25 38
June 4	21 2	10 8 48	10 22 21	11 6 15	11 20 32	0 5 09	0 20 01	1 5 01
11	28 2	1 20 01	2 4 51	2 19 23	3 3 32	3 17 15	4 0 33	4 13 26
18	4 3	4 25 58	5 8 13	5 20 17	6 2 13	6 14 05	6 25 58	7 7 54
25	11 3	7 19 57	8 2 07	8 14 28	8 26 59	9 9 42	9 22 38	10 5 48
July 2	18 3	10 19 12	11 2 52	11 16 46	0 0 54	0 15 16	0 29 47	1 14 23
9	25 3	1 28 58	2 13 27	2 27 42	3 11 40	3 25 18	4 8 34	4 21 28
16	32 3	5 4 02	5 16 20	5 28 25	6 10 22	6 22 15	7 4 09	7 16 08
23	7 4	7 28 15	8 10 34	8 23 07	9 5 55	9 18 59	10 2 19	10 15 53
30	14 4	10 29 40	11 13 37	11 27 42	0 11 52	0 26 06	1 10 21	1 24 34
Aug. 6	21 4	2 8 42	2 22 43	3 6 31	3 20 11	4 3 34	4 16 59	4 29 28
13	28 4	5 12 00	5 24 17	6 6 22	6 18 18	7 0 11	7 12 04	7 24 03
20	3 5	8 6 12	8 18 36	9 1 17	9 14 19	9 27 42	10 11 26	10 25 27
27	10 5	11 9 4[illegible]	11 21 05	0 8 3[illegible]	0 22 53	1 7 09	1 21 17	2 5 15
Sept. 3	17 5	2 19 02	3 2 39	3 16 04	3 29 18	4 12 20	4 25 09	5 7 46
10	24 5	5 20 10	6 2 22	6 14 24	6 26 18	7 8 09	7 20 00	8 1 56
17	31 5	8 14 03	8 26 26	9 9 10	9 22 17	10 5 52	10 19 52	11 4 15
24	7 6	11 18 56	0 3 46	0 18 36	1 3 20	1 17 50	2 2 03	2 15 58
Oct. 1	14 6	2 29 35	3 12 56	3 26 02	4 8 55	4 21 37	5 4 09	5 16 31
8	21 6	5 28 44	6 10 48	6 22 45	7 4 37	7 16 25	7 28 14	8 10 08
15	28 6	8 22 12	9 4 31	9 17 10	10 0 15	10 13 49	10 27 52	11 12 24
22	5 7	11 27 19	0 12 28	0 27 40	1 12 46	1 27 35	2 12 03	2 26 07
29	12 7	3 9 46	3 21 02	4 6 00	4 18 41	5 1 09	5 13 26	5 25 36
Nov. 5	19 7	6 7 58	6 19 35	7 1 27	7 13 17	7 25 05	8 6 55	8 18 50
12	26 7	9 0 54	9 13 11	9 25 46	10 8 45	10 22 10	11 6 0[illegible]	11 20 30
19	3 8	0 5 20	0 20 30	1 5 50	1 21 07	2 6 12	2 20 56	3 5 14
26	10 8	3 19 04	4 2 28	4 15 23	4 28 07	5 10 29	5 22 39	6 4 40
Dec. 3	17 8	6 16 35	6 28 27	7 10 17	7 22 07	8 3 59	8 15 55	8 27 58
10	24 8	9 10 09	9 22 32	10 5 10	10 18 07	11 1 26	11 15 09	11 29 18
17	2 9	0 13 51	0 28 41	1 13 50	1 29 00	2 14 04	2 28 53	3 13 21
24	9 9	3 27 23	4 10 58	4 24 06	5 6 51	5 19 16	6 1 26	6 13 24
31	16 9	6 25 18	7 7 05	7 18 54	8 0 47	8 12 46	8 24 53	9 7 09

Ayanamsa on 1st Jan. : 23° 28′ 11″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	भ ♂ भ	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	16 9	1 R6 57	7 28 53	11 9 55	8 16 12	9 17 19	7 23 39	7 24 39
3	18 9	1 6 51	7 29 19	11 11 12	8 18 14	9 19 47	7 25 43	7 26 49
5	20 9	1 6 45	7 29 46	11 12 30	8 20 16	9 22 15	7 27 58	7 29 09
7	22 9	1 6 40	8 0 12	11 13 48	8 22 18	9 24 43	8 0 22	8 1 37
9	23 9	1 6 35	8 0 38	11 15 06	8 24 21	9 27 10	8 2 53	8 4 11
11	25 9	1 6 30	8 1 04	11 16 24	8 26 23	9 29 38	8 5 30	8 6 51
13	27 9	1 6 26	8 1 30	11 17 43	8 28 25	10 2 05	8 8 13	8 9 35
15	29 9	1 6 22	8 1 56	11 19 01	9 0 28	10 4 32	8 10 59	8 12 23
17	1 10	1 6 18	8 2 21	11 20 20	9 2 30	10 6 59	8 13 49	8 15 15
19	3 10	1 6 15	8 2 46	11 21 39	9 4 32	10 9 26	8 16 42	8 18 09
21	5 10	1 6 13	8 3 11	11 22 57	9 6 34	10 11 52	8 19 38	8 21 07
23	8 10	1 6 10	8 3 36	11 24 16	9 8 36	10 14 19	8 22 36	8 24 07
25	10 10	1 6 09	8 4 01	11 25 35	9 10 39	10 16 45	8 25 38	8 27 09
27	12 10	1 6 08	8 4 25	11 26 54	9 12 41	10 19 10	8 28 42	9 0s14
29	14 10	1 6 07	8 4 49	11 28 14	9 14 42	10 21 36	9 1 18	9 3 22
31	16 10	1D6 06	8 5 13	11 29 33	9 16 44	10 24 01	9 4 57	9 6 33
Feb. 2	18 10	1 6 07	8 5 36	0 0 52	9 18 46	10 26 26	9 8 09	9 9 46
4	20 10	1 6 07	8 6 00	0 2 11	9 20 48	10 28 50	9 11 23	9 13 02
6	22 10	1 6 08	8 6 22	0 3 30	9 22 49	11 1 14	9 14 41	9 16 21
8	23 10	1 6 10	8 6 45	0 4 49	9 24 51	11 3 38	9 18 01	9 19 43
10	25 10	1 6 12	8 7 07	0 6 08	9 26 53	11 6 01	9 21 25	9 23 05
12	27 10	1 6 14	8 7 29	0 7 28	9 28 54	11 8 24	9 24 52	9 26 37
14	29 10	1 6 17	8 7 51	0 8 47	10 0 55	11 10 47	9 28 22	10 0 09
16	2 11	1 6 20	8 8 12	0 10 06	10 2 57	11 13 09	10 1 56	10 3☉41
18	4 11	1 6 24	8 8 32	0 11 25	10 4 58	11 15 31	10 5 33	10 7 23
20	6 11	1 6 28	8 8 53	0 12 45	10 6 59	11 17 52	10 9 13	10 11 04
22	8 11	1 6 33	8 9 13	0 14 04	10 9 00	11 20 13	10 12 56	10 14 48
24	10 11	1 6 38	8 9 32	0 15 23	10 11 01	11 22 33	10 16 41	10 18 34
26	12 11	1 6 43	8 9 51	0 16 42	10 13 01	11 24 53	10 20 28	10 22 22
28	14 11	1 6 49	8 10 10	0 18 01	10 15 02	11 27 12	10 24r15	10 26 08
Mar. 1	16 11	1 6 55	8 10 28	0 19 20	10 17 02	11 29 31	10 28 01	10 29 52
3	18 11	1 7 02	8 10 45	0 20 39	10 19 03	0 1 48	11 1 43	11 3 31
5	20 11	1 7 09	8 11 02	0 21 58	10 21 03	0 4 05	11 5 18	11 7 02
7	22 11	1 7 16	8 11 19	0 23 17	10 23 03	0 6 22	11 8 43	11 10 20
9	24 11	1 7 24	8 11 35	0 24 36	10 25 03	0 8 38	11 11 53	11 13 22
11	26 11	1 7 32	8 11 50	0 25 55	10 27 03	0 10 53	11 14 45	11 16 03
13	28 11	1 7 41	8 12 05	0 27 14	10 29 03	0 13 07	11 17 14	11 18 19
15	30 11	1 7 49	8 12 20	0 28 33	11 1 02	0 15 20	11 19 17	11 20 07
17	2 12	1 7 59	8 12 34	0 29 51	11 3 02	0 17 33	11 20 50	11 21 25
19	5 12	1 8 08	8 12 47	1 1 10	11 5 01	0 19 44	11 21 51	11 22 10
21	7 12	1 8 18	8 13 00	1 2 29	11 7 01	0 21 55	11R22 20	11 22 22
23	9 12	1 8 28	8 13 11	1 3 47	11 9 00	0 24 04	11 22 16	11 22s03
25	11 12	1 8 39	8 13 23	1 5 06	11 10 59	0 26 12	11 21 43	11 21 16
27	13 12	1 8 50	8 13 34	1 6 24	11 12 57	0 28 19	11 20 43	11 20 05
29	15 12	1 9 01	8 13 44	1 7 43	11 14 56	1 0 25	11 19 23	11 18 37
31	17 12	1 9 12	8 13 53	1 9 01	11 16 54	1 2 30	11 17☉49	11 16 59
Apr. 2	18 12	1 9 24	8 14 02	1 10 19	11 18 53	1 4 33	11 16 09	11 15 20
4	20 12	1 9 36	8 14 10	1 11 37	11 20 51	1 6 35	11 14 32	11 13 47
6	22 12	1 9 48	8 14 17	1 12 55	11 22 49	1 8 35	11 13 05	11 12 26
8	24 12	1 10 00	8 14 24	1 14 13	11 24 47	1 10 33	11 11 52	11 11r23
10	26 12	1 10 13	8 14 30	1 15 31	11 26 45	1 12 30	11 10 58	11 10 39
12	28 12	1 10 26	8 14 35	1 16 49	11 28 43	1 14 24	11 10 25	11 10 18
14	1 1	1 10 39	8 14 40	1 18 07	0 0 40	1 16 17	11D10 13	11 10 14
16	3 1	1 10 52	8 14 43	1 19 25	0 2 38	1 18 08	11 10 21	11 10 55

1972 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 28′ 11″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr16	3 1	1 10 52	8 14 43	1 19 25	0 2 38	1 18 08	11 10 21	11 10 33
18	5 1	1 11 05	8 14 46	1 20 43	0 4 35	1 19 56	11 10 50	11 11 12
20	7 1	1 11 19	8 14 49	1 22 00	0 6 32	1 21 42	11 11 38	11 12 08
22	9 1	1 11 33	8 14 50	1 23 18	0 8 30	1 23 25	11 12 42	11 13 21
24	11 1	1 11 47	8R14 51	1 24 35	0 10 26	1 25 05	11 14 03	11 14 48
26	13 1	1 12 01	8 14 51	1 25 53	0 12 23	1 26 42	11 15 38	11 16 30
28	15 1	1 12 15	8 14 50	1 27 10	0 14 20	1 28 16	11 17 26	11 18 24
30	16 1	1 12 30	8 14 49	1 28 28	0 16 16	1 29 46	11 19 26	11 20 30
May 2	19 1	1 12 45	8 14 46	1 29 45	0 18 13	2 1 13	11 21 37	11 22 47
4	21 1	1 12 59	8 14 43	2 1 02	0 20 09	2 2 35	11 23 59	11 25 13
6	22 1	1 13 14	8 14 40	2 2 19	0 22 05	2 3 52	11 26 30	11 27 50
8	25 1	1 13 29	8 14 35	2 3 36	0 24 02	2 5 05	11 29 11	0 0 35
10	27 1	1 13 44	8 14 30	2 4 53	0 25 58	2 6 13	0 2 01	0 3 30
12	29 1	1 13 59	8 14 24	2 6 10	0 27 53	2 7 15	0 5 00	0 6 32
14	1 1	1 14s15	8 14 17	2 7 27	0 29 49	2 8 11	0 8 07	0 9 44
16	4 1	1 14 30	8 14 10	2 8 44	1 1 45	2 9 01	0 11 23	0 13 04
18	6 1	1 14 45	8 14 02	2 10 01	1 3 41	2 9 44	0 14 47	0 16 32
20	8 1	1 15 01	8 13 53	2 11 18	1 5 36	2 10 19	0 18 19	0 20 08
22	10 1	1 15 16	8 13 44	2 12 34	1 7 32	2 10 46	0 22 00	0 23s53
24	12 1	1 15 32	8 13 34	2 13 51	1 9 27	2 11 05	0 25 49	0 27 47
26	14 1	1 15 47	8 13 24	2 15 08	1 11 22	2R11 15	0 29 46	1 1 48
28	15 1	1 16 03	8 13 13	2 16 24	1 13 17	2 11 15	1 3 51	1 5 56
30	17 1	1 16 18	8 13 01	2 17 41	1 15 12	2 11 06	1 8 03	1 10 11
June 1	19 1	1 16 34	8 12 49	2 18 57	1 17 07	2 10 48	1 12 20	1 14 30
3	21 1	1 16 50	8 12 37	2 20 13	1 19 02	2 10 20	1 16 41	1 18 53
5	23 1	1 17 05	8 12 24	2 21 30	1 20 57	2 9 42	1 21 05	1 23 17
7	25 1	1 17 21	8 12 10	2 22 46	1 22 52	2 8 56	1 25 29	1 27 41
9	28 1	1 17 36	8 11 56	2 24 02	1 24 47	2 8 01	1 29 51	2 2 01
11	30 1	1 17 52	8 11 42	2 25 19	1 26 41	2 6 59	2 4 09	2 6 16
13	2 2	1 18 07	8 11 23	2 26 35	1 28 36	2 5s52	2 8r21	2 10 25
15	4 2	1 18 23	8 11 13	2 27 51	2 0 31	2 4 40	2 12 26	2 14 26
17	6 2	1 18 38	8 10 58	2 29 07	2 2 25	2 3 25	2 16 24	2 18 19
19	8 2	1 18r53	8 10 43	3 0 24	2 4 20	2 2 10	2 20 12	2 22 03
21	10 2	1 19 08	8 10 28	3 1 40	2 6 14	2 0 56	2 23 52	2 25 38
23	12 2	1 19 23	8 10 13	3 2 56	2 8 09	1 29 46	2 27 22	2 29 04
25	14 2	1 19 38	8 9 57	3 4 12	2 10 03	1 28 40	3 0 43	3 2 21
27	16 2	1 19 53	8 9 42	3 5 28	2 11 58	1 27 40	3 3 55	3 5 25
29	18 2	1 20 08	8 9 27	3 6 41	2 13 52	1 26 48	3 6 58	3 8 26
July 1	20 2	1 20 23	8 9 11	3 8 00	2 15 46	1 26 05	3 9 51	3 11 14
3	22 2	1 20 37	8 8 56	3 9 16	2 17 41	1 25 30	3 12 34	3 13 52
5	24 2	1 20 52	8 8 41	3 10 32	2 19 35	1 25 05	3 15 07	3 16 20
7	26 2	1 21 06	8 8 26	3 11 48	2 21 30	1 24 50	3 17 30	3 18 37
9	28 2	1 21 20	8 8 12	3 13 04	2 23 24	1D24 45	3 19 42	3 20 43
11	1 3	1 21 34	8 7 58	3 14 20	2 25 19	1 24 48	3 21 42	3 22 37
13	3 3	1 21 48	8 7 44	3 15 36	2 27 13	1 25 01	3 23 30	3 24 18
15	5 3	1 22 02	8 7 30	3 16s52	2 29 08	1 25 22	3 25 04	3 25 46
17	7 3	1 22 15	8 7 17	3 18 07	3 1 02	1 25 51	3 26 23	3 26 57
19	9 3	1 22 28	8 7 05	3 19 23	3 2 56	1 26 28	3 27 27	3 27 53
21	10 3	1 22 41	8 6 52	3 20 39	3 4 51	1 27 12	3 28 14	3 28 31
23	12 3	1 22 54	8 6 41	3 21 55	3 6 46	1 28 02	3 28 43	3R28 50
25	14 3	1 23 07	8 6 30	3 23 11	3 8 40	1 28 59	3 28 53	3 28s50
27	16 3	1 23 19	8 6 19	3 24 27	3 10 35	2 0 02	3 28 42	3 28 29
29	18 3	1 23 31	8 6 09	3 25 43	3 12 29	2 1 10	3 28 12	3 27 49
31	20 3	1 23 43	8 6 00	3 26 59	3 14 24	2 2 23	3 27 21	3 26 50

Ayanamsa on 1st Jan. : 23° 28' 11"

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
July 31	20	3	1 23 43	8R 6 00	3 26s59	3 14 24	2 2 23	3R 27s21	3 28 50
Aug. 2	23	3	1 23 55	8 5 51	3 28 15	3 16 19	2 3 40	3 26 14	3 25 35
4	25	3	1 24 06	8 5 43	3 29 31	3 18 14	2 5 03	3 24 52	3 24 07
6	27	3	1 24 17	8 5 35	4 0 47	3 20 09	2 6 29	3 23 21	3 22☉34
8	29	3	1 24 28	8 5 29	4 2 03	3 22 01	2 7 58	3 21 47	3 21 00
10	1	4	1 24 38	8 5 23	4 3 19	3 23 59	2 9 32	3 20 16	3 19 31
12	3	4	1 24 49	8 5 17	4 4 35	3 25 54	2 11 08	3 18 55	3 18 22
14	5	4	1 24 59	8 5 13	4 5 52	3 27 49	2 12 47	3 17 51	3 17r29
16	7	4	1 25 08	8 5 09	4 7 08	3 29 45	2 14 29	3 17 12	3D 17 02
18	9	4	1 25 18	8 5 06	4 8 24	4 1 40	2 16 14	3 16 59	3 17 03
20	11	4	1 25 26	8 5 03	4 9 40	4 3 35	2 18 01	3 17 15	3 17 34
22	13	4	1 25 35	8 5 02	4 10 56	4 5 31	2 19 50	3 18 01	3 18 35
24	15	4	1 25 43	8 5 01	4 12 13	4 7 27	2 21 41	3 19 17	3 20 07
26	17	4	1 25 51	8D 5 01	4 13 29	4 9 22	2 23 35	3 21 03	3 22 07
28	19	4	1 25 59	8 5 01	4 14 45	4 11 18	2 25 30	3 23 16	3 24 32
30	21	4	1 26 06	8 5 03	4 16 02	4 13 14	2 27 27	3 25 54	3 27 21
Sept. 1	24	4	1 26 13	8 5 05	4 17 18	4 15 10	2 29 25	3 28 53	4 0 29
3	26	4	1 26 19	8 5 08	4 18 35	4 17 06	3 1 26	4 2 09	4 3 53
5	28	4	1 26 26	8 5 11	4 19 51	4 19 03	3 3 27	4 5 39	4 7 28
7	30	4	1 26 31	8 5 16	4 21☉08	4 20 59	3 5 31	4 9 18	4 11s10
9	2	5	1 26 37	8 5 21	4 22 25	4 22 56	3 7 35	4 13 03	4 14 57
11	4	5	1 26 41	8 5 26	4 23 42	4 24 52	3 9 41	4 16 51	4 18 46
13	5	5	1 26 46	8 5 33	4 24 58	4 26 49	3 11 47	4 20 40	4 22 34
15	7	5	1 26 50	8 5 40	4 26 15	4 28 46	3 13 55	4 24 28	4 26 21
17	9	5	1 26 54	8 5 48	4 27 32	5 0 43	3 16 04	4 28 14	5 0 06
19	11	5	1 26 57	8 5 57	4 28 49	5 2 40	3 18 14	5 1☉57	5 3 47
21	13	5	1 27 00	8 6 06	5 0 06	5 4 37	3 20 25	5 5 36	5 7 24
23	15	5	1 27 02	8 6 16	5 1 23	5 6 35	3 22 37	5 9 12	5 10 58
25	18	5	1 27 04	8 6 27	5 2 40	5 8 32	3 24 50	5 12 44	5 14 28
27	20	5	1 27 05	8 6 38	5 3 57	5 10 30	3 27 04	5 16 12	5 17 55
29	22	5	1 27 06	8 6 50	5 5 15	5 12 28	3 29 18	5 19 36	5 21 17
Oct. 1	24	5	1R 27 07	8 7 03	5 6 32	5 14 26	4 1 34	5 22 57	5 24 36
3	26	5	1 27 07	8 7 16	5 7 50	5 16 24	4 3 50	5 26 15	5 27 52
5	28	5	1 27 07	8 7 30	5 9 07	5 18 22	4 6 07	5 29 29	6 1 05
7	30	5	1 27 06	8 7 44	5 10 25	5 20 20	4 8 24	6 2 40	6 4 14
9	2	6	1 27 05	8 7 59	5 11 42	5 22 19	4 10 42	6 5 48	6 7 21
11	4	6	1 27 03	8 8 15	5 13 00	5 24 17	4 13 01	6 8 53	6 10 24
13	6	6	1 27 01	8 8 31	5 14 18	5 26 16	4 15 20	6 11 55	6 13 25
15	7	6	1 26 59	8 8 47	5 15 36	5 28 15	4 17 40	6 14 54	6 16 22
17	9	6	1 26 56	8 9 04	5 16r54	6 0 14	4 20 01	6 17 50	6 19 17
19	11	6	1 26 52	8 9 22	5 18 12	6 2 13	4 22 22	6 20 43	6 22 09
21	14	6	1 26 49	8 9 40	5 19 30	6 4 13	4 24 43	6 23 33	6 24 57
23	16	6	1 26 44	8 9 59	5 20 48	6 6 12	4 27 05	6 26 20	6 27 42
25	18	6	1 26 40	8 10 18	5 22 07	6 8 12	4 29 28	6 29 03	7 0 23
27	21	6	1 26 35	8 10 38	5 23 25	6 10 11	5 1 51	7 1 42	7 3 00
29	23	6	1 26 29	8 10 58	5 24 43	6 12 11	5 4 14	7 4 16	7 5 31
31	25	6	1 26 24	8 11 18	5 26 02	6 14 11	5 6 38	7 6 45	7 7 57
Nov. 2	27	6	1 26 18	8 11 39	5 27 21	6 16 11	5 9 03	7 9 06	7 10 14
4	29	6	1 26 11	8 12 00	5 28 39	6 18 11	5 11 27	7 11 20	7 12 22
6	30	6	1 26 04	8 12 22	5 29 58	6 20 12	5 13 52	7 13 22	7 14 19
8	2	7	1 25 57	8 12 44	6 1 17	6 22 12	5 16 17	7 15 12	7 16 00
10	4	7	1 25 50	8 13 06	6 2 36	6 24 12	5 18 43	7 16 45	7 17 24
12	6	7	1 25 42	8 13 29	6 3 55	6 26 13	5 21 09	7 17 57	7 18 24
14	8	7	1 25 34	8 13 52	6 5 15	6 28 14	5 23 35	7 18 43	7R 18 55

1972 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov 14	8	7	1 R25 34	8 13 52	6 5 15	6 28 14	5 23 35	7 18 43	7 R18 55
16	10	7	1 25 26	8 14 16	6 6 34	7 0 15	5 26 01	7 18 58	7 18 52
18	12	7	1 25 17	8 14 40	6 7 53	7 2 16	5 28 28	7 18 36	7 18 10
20	14	7	1 25 03	8 15 04	6 9 13	7 4 17	6 0 55	7 17 33	7 16 45
22	17	7	1 24 59	8 15 28	6 10 32	7 6 18	6 3 22	7 15 48	7 14 42
24	19	7	1 24 50	8 15 53	6 11 52	7 8 20	6 5 50	7 13 38	7 12 09
26	21	7	1 24 41	8 16 18	6 13 12	7 10 21	6 8 18	7 10♂48	7 9 26
28	23	7	1 24 31	8 16 43	6 14 32	7 12 22	6 10 45	7 8 06	7 6 52
30	25	7	1 24 22	8 17 08	6 15 52	7 14 24	6 13 14	7 5 45	7 4 r47
Dec. 2	27	7	1 24 12	8 17 34	6 17 12	7 16 26	6 15 42	7 4 00	7 3 25
4	29	7	1 24 02	8 18 00	6 18 32	7 18 27	6 18 10	7 3 01	7 D2 48
6	1	8	1 23 52	8 18 26	6 19 52	7 20 29	6 20 39	7 2 46	7 2 54
8	2	8	1 23 42	8 18 52	6 21 13	7 22 31	6 23 08	7 3 12	7 3 38
10	4	8	1 23 32	8 19 19	6 22 33	7 24 33	6 25 37	7 4 12	7 4 53
12	6	8	1 23 22	8 19 46	6 23 54	7 26 35	6 28 06	7 5 40	7 6 32
14	8	8	1 23 13	8 20 12	6 25 14	7 28 37	7 0 35	7 7 30	7 8 31
16	10	8	1 23 03	8 20 39	6 26 35	8 0 39	7 3 04	8 9 36	7 10 44
18	13	8	1 22 53	8 21 07	6 27 56	8 2 41	7 5 33	8 11 55	7 13 08
20	15	8	1 22 43	8 21 34	6 29 17	8 4 44	7 8 03	7 14 24	7 15 41
22	17	8	1 22 34	8 22 01	7 0 38	8 6 46	7 10 32	7 17 00	7 18 21
24	20	8	1 22 25	8 22 29	7 1 59	8 8 48	7 13 02	7 19 42	7 21 05
26	22	8	1 22 15	8 22 57	7 3 20	8 10 50	7 15 31	7 22 29	7 23 54
28	24	8	1 22 06	8 23 s24	7 4 42	8 12 52	7 18 01	7 25 19	7 26 46
30	25	8	1 21 58	8 23 52	7 6 3	8 14 55	7 20 31	7 28 13	7 29 40
Jan. 1	27	8	1 21 49	8 24 20	7 7 25	8 16 57	7 23 01	8 1 05	8 2 37

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Aysnam.
		s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January	1	9 11 51	9 13 10	5 24 37	7 10 38	5 R 8 34	23 28 11
February	1	9 11 48	9 11 31	5 R24 49	7 11 26	5 8 22	23 28 16
March	1	9 11 26	9 9 59	5 24 15	7 R11 46	5 7 46	23 28 20
April	1	9 9 17	9 8 20	5 23 02	7 11 37	5 6 56	23 28 23
May	1	9 6 01	9 6 45	5 21 48	7 11 02	5 6 14	23 28 27
June	1	9 3 25	9 5 06	5 20 54	7 10 14	5 5 51	23 28 32
July	1	9 2 36	9 3 31	5 D20 45	7 9 30	5 D 5 58	23 28 37
August	1	9 2 39	9 1 53	5 21 25	7 9 03	5 6 34	23 28 42
September	1	9 1 58	9 0 14	5 22 47	7 D 9 06	5 7 32	23 28 47
October	1	8 29 35	8 28 39	5 24 32	7 9 37	5 8 39	23 28 50
November	1	8 26 07	8 27 00	5 26 28	7 10 33	5 9 46	23 28 54
December	1	8 23 52	8 25 25	5 28 07	7 11 39	5 10 34	23 28 58
January	1	8 23 23	8 23 46	5 29 15	7 12 45	5 10 56	23 29 04

Combustion or Heliacal Setting of Planets

Saturn	:	From May 15 to June 18.
Jupiter	:	From Dec. 29 to Jan. 23 (1973).
Mars	:	From July 15 to Oct. 18.
Venus	:	From June 13 to June 22.
Mercury	:	From Jan. 28 to Feb. 28, Mar. 24 to Apr. 9, May 23 to June 13, July 26 to Aug. 15, Sept. 8 to Oct. 11, Nov. 19 to Dec. 1.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Mar.	21,	24	15	11	22	22	Apr.	14,	9	03	11	10	13
	July	24,	28	29	3	28	53	Aug.	17,	28	01	3	16	59
	Nov.	15,	25	41	7	18	58	Dec.	5	22	04	7	2	46
Venus	May	27,	8	42	2	11	16	July	9,	10	29	1	24	45
Mars	—		—			—		—		—			—	
Jupiter	Apr.	25,	5	48	8	14	51	Aug.	25,	13	36	8	5	01
Saturn	—		—			—		Jan.	31,	15	43	1	6	06
	Oct.	2,	21	47	1	27	07	—		—			—	
Uranus	Jan.	23,	11	16	5	24	51	June	21,	22	42	5	20	43
Neptune	Mar.	7,	10	35	7	11	47	Aug.	14,	8	18	7	9	01
Pluto	Jan.	4,	21	09	5	8	35	June	9,	11	27	5	5	50

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	16	16	22	Māgha	Sukla	Jan.	30	16	28	Phālguna	Vadi
Feb.	15	5	59	Phālguna	,,	Feb.	29	8	42	Caitra	,,
Mar.	15	17	05	Caitra	,,	Mar.	29	25	35	Vaiśākha	,,
Apr.	13	26	01	Vaiśākha (*Mala*)	,,	Apr.	28	18	14	Vaiśakha(*Adhika*)	,,
May	13	9	38	Vaiśakha (*Suddha*)	,,	May	28	9	58	Jyaiṣṭha	,,
June	11	17	00	Jyaiṣṭha	,,	June	26	24	16	Āṣaḍha	,,
July	10	25	09	Āṣāḍha	,,	July	26	12	54	Śravaṇa	,,
Aug.	9	10	56	Śravaṇa	,,	Aug.	24	23	52	Bhādra	,,
Sept.	7	22	58	Bhādra	,,	Sept.	23	9	37	Āśvina	,,
Oct.	7	13	38	Āśvina	,,	Oct.	22	18	55	Kārtika	,,
Nov.	6	6	51	Kārtika	,,	Nov.	20	28	37	Agrahā	,,
Dec.	5	25	54	Agrahā	,,	Dec.	20	15	15	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	18	39	Karkaṭa	on	July	15	27	31
Kumbha	on	Feb.	13	7	36	Siṁha	on	Aug.	16	11	56
Mīna	on	Mar.	13	28	28	Kanyā	on	Sept.	16	11	52
Meṣa	on	Apr.	13	13	00	Tulā	on	Oct.	16	23	46
Vṛṣa	on	May	14	9	56	Vṛścika	on	Nov.	15	23	30
Mithuna	on	June	14	16	35	Dhanus	on	Dec.	15	14	04

1973 A.D. Longitude of Moon CONDENSED

Saka era 1894-95, Saṁvat 2029-30 (Apr. 4, Oct. 27), B.S. 1379-80 (Apr. 14), Kollam era 1148-49 (Aug. 17), 47 Pramādin (Apr. 4, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ চ) at 5-30 A.M. I.S.T. Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec.31	16 9	6 25 16	7 7 05	7 18 54	8 0 47	8 12 46	8 24 53	9 7 09
Jan. 7	23 9	9 19 35	10 2 14	10 15 06	10 28 13	11 11 35	11 25 15	0 9 12
14	30 9	0 23 27	1 7 55	1 22 35	2 7 21	2 22 06	3 6 43	3 21 05
21	7 10	4 5 08	4 18 48	5 2 03	5 14 54	5 27 24	6 9 37	6 21 37
28	14 10	7 3 29	7 15 17	7 27 08	8 9 04	8 21 09	9 3 27	9 15 58
Feb. 4	21 10	9 28 45	10 11 46	10 25 02	11 8 30	11 22 10	0 6 00	0 19 58
11	28 10	1 4 04	1 18 15	2 2 30	2 16 48	3 1 04	3 15 15	3 29 17
18	6 11	4 13 05	4 26 36	5 9 48	5 22 39	6 5 11	6 17 26	6 29 27
25	13 11	7 11 20	7 23 09	8 5 00	8 16 57	8 29 07	9 11 32	9 24 16
Mar. 5	20 11	10 7 20	10 20 44	11 4 26	11 18 22	0 2 23	0 16 40	1 0 53
11	27 11	1 15 04	1 29 12	2 13 15	2 27 12	3 11 03	3 24 47	4 8 22
18	4 12	4 21 47	5 4 59	5 17 57	6 0 39	6 13 05	6 25 17	7 7 17
25	11 12	7 19 10	8 0 58	8 12 48	8 24 45	9 6 55	9 19 23	10 2 12
Apr. 1	18 12	10 15 26	10 29 04	11 13 06	11 27 27	0 12 00	0 26 39	1 11 15
8	25 12	1 25 44	2 10 01	2 24 05	3 7 56	3 21 33	4 4 58	4 18 12
15	2 1	5 1 14	5 14 04	5 26 43	6 9 10	6 21 25	7 3 30	7 15 26
22	9 1	7 27 16	8 9 04	8 20 53	9 2 49	9 14 58	9 27 24	10 10 12
29	16 1	10 23 27	11 7 09	11 21 19	0 5 53	0 20 44	1 5 43	1 20 42
May 6	23 1	2 5 33	2 20 08	3 4 24	3 18 20	4 1 56	4 15 13	4 28 14
13	30 1	5 11 00	5 23 33	6 5 55	6 18 07	7 0 11	7 12 08	7 23 59
20	6 2	8 5 46	8 17 34	8 29 25	9 11 22	9 23 31	10 5 56	10 18 42
27	13 2	11 1 53	11 15 31	11 29 37	0 14 09	0 29 03	1 14 10	1 29 21
June 3	20 2	2 14 27	2 29 19	3 13 50	3 27 58	4 11 41	4 25 01	5 7 58
10	27 2	5 20 37	6 3 01	6 15 11	6 27 13	7 9 08	7 20 58	8 2 46
17	2 3	8 14 34	8 26 25	9 8 21	9 20 21	10 2 39	10 15 08	10 27 54
24	9 3	11 11 02	11 24 34	0 8 30	0 22 51	1 7 34	1 22 33	2 7 41
July 1	16 3	2 22 49	3 7 48	3 22 29	4 6 48	4 20 40	5 4 06	5 17 07
8	23 3	5 29 45	6 12 05	6 24 11	7 6 07	7 17 57	7 29 45	8 11 33
15	30 3	8 23 25	9 5 23	9 17 29	9 29 44	10 12 10	10 24 50	11 7 45
22	6 4	11 20 56	0 4 25	0 18 13	1 2 21	1 16 47	2 1 28	2 16 19
29	13 4	3 1 15	3 16 06	4 0 45	4 15 05	4 29 01	5 12 32	5 25 36
Aug. 5	20 4	6 8 17	6 20 38	7 2 43	7 14 37	7 26 26	8 8 14	8 20 05
12	27 4	9 2 03	9 14 10	9 26 29	10 9 01	10 21 46	11 4 44	11 17 55
19	2 5	0 1 18	0 14 54	0 28 42	1 12 42	1 26 53	2 11 14	2 25 43
26	9 5	3 10 15	3 24 46	4 9 10	4 23 19	5 7 09	5 20 37	6 3 41
Sept 2	16 5	6 16 22	6 28 43	7 10 49	7 22 43	8 4 32	8 16 21	8 28 14
9	23 5	9 10 17	9 22 34	10 5 06	10 17 55	11 1 01	11 14 22	11 27 56
16	30 5	0 11 41	0 25 34	1 9 33	1 23 35	2 7 40	2 21 48	3 5 57
23	6 6	3 20 06	4 4 11	4 18 10	5 1 57	5 15 30	5 28 46	6 11 42
30	13 6	6 24 18	7 6 37	7 18 41	8 0 35	8 12 23	8 24 12	9 6 06
Oct. 7	20 6	9 18 11	10 0 32	10 13 12	10 26 14	11 9 37	11 23 20	0 7 20
14	27 6	0 21 31	1 5 49	1 20 09	2 4 27	2 18 39	3 2 45	3 16 44
21	4 7	4 0 36	4 14 19	4 27 52	5 11 14	5 24 24	6 7 20	6 20 00
28	11 7	7 2 26	7 14 38	7 26 38	8 8 30	8 20 17	9 2 05	9 13 58
Nov. 4	18 7	9 26 02	10 8 22	10 21 02	11 4 06	11 17 37	0 1 32	0 15 49
11	25 7	1 0 23	1 15 07	1 29 53	2 14 35	2 29 07	3 13 20	3 27 28
18	2 8	4 11 15	4 24 45	5 8 00	5 21 01	6 3 49	6 16 23	6 28 46
25	9 8	7 10 58	7 23 01	8 4 55	8 16 44	8 28 31	9 10 18	9 22 10
Dec. 2	16 8	10 4 12	10 16 29	10 29 04	11 12 03	11 25 28	0 9 21	0 23 41
9	23 8	1 8 23	1 23 22	2 8 29	2 23 35	3 8 31	3 23 11	4 7 29
16	30 8	4 21 23	5 4 54	5 18 03	6 0 52	6 13 24	6 25 43	7 7 51
23	7 9	7 19 50	8 1 43	8 13 33	8 25 20	9 7 08	9 18 59	10 0 54
30	14 9	10 12 59	10 25 15	11 7 47	11 20 39	0 3 54	0 17 34	1 1 42
Jan. 6	21 9	1 16 15	2 1 10	2 16 20	3 1 37	3 16 49	4 1 47	4 16 28

Ayanamsa on 1st Jan. : 23° 29′ 04″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ न	गु ♃ बृ	म ♂ भ	र ☉ सू	शु ♀ भृ	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	27 8	1 R21 49	8 24s20	7 7 25	8 16 57	7 23 01	8 1 08	8 2 37
3	29 8	1 21 41	8 24 48	7 8 47	8 18 59	7 25 31	8 4 06	8 5 36
5	1 9	1 21 33	8 25 16	7 10 08	8 21 02	7 28 01	8 7 06	8 8 36
7	3 9	1 21 25	8 25 44	7 11 30	8 23 04	8 0 31	8 10 07	8 11 59
9	5 9	1 21 17	8 26☉12	7 12 52	8 25 06	8 3 01	8 13s11	8 14 43
11	7 9	1 21 10	8 26 40	7 14 24	8 27 09	8 5 31	8 16 16	8 17 49
13	9 9	1 21 03	8 27 08	7 15 37	8 29 11	8 8 01	8 19 23	8 20 57
15	11 9	1 20 57	8 27 36	7 16 59	9 1 13	8 10 31	8 22 32	8 24 07
17	13 9	1 20 51	8 28 04	7 18 21	9 3 15	8 13 01	8 25 42	8 27 18
19	16 9	1 20 45	8 28 32	7 19 43	9 5 17	8 15 31	8 28 55	9 0 32
21	18 9	1 20 40	8 29 00	7 21 06	9 7 20	8 18 01	9 2 10	9 3 48
23	20 9	1 20 35	8 29r28	7 22 29	9 9 22	8 20 31	9 5 27	9 7 07
25	22 9	1 20 30	8 29 56	7 23 52	9 11 24	8 23 01	9 8 47	9 10 28
27	24 9	1 20 26	9 0 24	7 25 14	9 13 26	8 25 32	9 12 09	9 13☉51
29	25 9	1 20 23	9 0 54	7 26 37	9 15 28	8 28 02	9 15 34	9 17 17
31	27 9	1 20 19	9 1 19	7 28 00	9 17 30	9 0 32	9 19 01	9 20 46
Feb. 2	29 9	1 20 16	9 1 47	7 29 24	9 19 31	9 3 02	9 22 31	9 24 17
4	1 10	1 20 14	9 2 14	8 0 47	9 21 33	9 5 32	9 26 04	9 27 51
6	3 10	1 20 12	9 2 41	8 2 10	9 23 35	9 8 02	9 29 38	10 1 26
8	5 10	1 20 11	9 3 08	8 3 34	9 25 36	9 10 33	10 3 14	10 5 03
10	7 10	1 20 10	9 3 35	8 4 57	9 27 38	9 13 03	10 6 51	10 8r40
12	10 10	1 20 09	9 4 02	8 6 21	9 29 39	9 15 33	10 10 28	10 12 15
14	12 10	1 D20 09	9 4 28	8 7 44	10 1 41	9 18 03	10 14 02	10 15 48
16	14 10	1 20 09	9 4 55	8 9 08	10 3 42	9 20 33	10 17 33	10 19 15
18	16 10	1 20 10	9 5 21	8 10 32	0 5 43	9 23 03	10 20 56	10 22 33
20	18 10	1 20 11	9 5 47	8 11 56	10 7 44	9 25 33	10 24 08	10 25 38
22	20 10	1 20 13	9 6 13	8 13 20	10 9 45	9 28 03	10 27 04	10 28 25
24	22 10	1 20 15	9 6 39	8 14 44	10 11 45	10 0 32	10 29 40	11 0 49
26	24 10	1 20 18	9 7 04	8 16 08	10 13 46	10 3 02	11 1 50	11 2 46
28	26 10	1 20 21	9 7 29	8 17 32	10 15 47	10 5 32	11 3 30	11 4 08
Mar. 2	27 10	1 20 24	9 7 54	8 18 57	10 17 47	10 8s02	11 4 36	11 4 55
4	29 10	1 20 28	9 8 18	8 20 21	10 19 48	10 10 32	11 R5 05	11 5 05
6	2 11	1 20 32	9 8 43	8 21 45	10 21 48	10 13 02	11 4 57	11 4s39
8	4 11	1 20 37	9 9 07	8 23 10	10 23 48	10 15 31	11 4 13	11 3 39
10	6 11	1 20 42	9 9 30	8 24 35	10 25 48	10 18 01	11 2 58	11 2 12
12	8 11	1 20 48	9 9 54	8 25 59	10 27 48	10 20 30	11 1 21	11 0☉26
14	10 11	1 20 54	9 10 17	8 27 24	10 29 47	10 23 0[illegible]	10 29 29	10 28 3[illegible]
16	12 11	1 21 00	9 10 39	8 28 49	11 1 47	10 25 29	10 27 34	10 26 39
18	15 11	1 21 07	9 11 02	9 0 14	11 3 46	10 27 59	10 25 46	10 24 56
20	17 11	1 21 14	9 11 24	9 1 39	11 5 46	11 0 28	10 24 11	10 23r31
22	18 11	1 21 22	9 11 45	9 3 03	11 7 45	11 2 58	10 22 56	10 22 27
24	0 11	1 21 30	9 12 06	9 4 28	11 9 44	11 5 27	10 22 05	10 21 48
26	22 11	1 21 38	9 12 27	9 5 54	11 11 43	11 7 56	10 21 37	10 D21 32
28	24 11	1 21 46	9 12 47	9 7 19	11 13 41	11 10 25	10 21 33	10 21 39
30	26 11	1 21 55	9 13 07	9 8 44	11 15 40	11 12 54	10 21 51	10 22 08
Apr. 1	28 11	1 22 05	9 13 27	9 10 09	11 17 38	11 15 23	10 22 30	10 22 57
3	30 11	1 22 14	9 13 46	9 11 34	11 19 37	11 17 52	10 23 28	10 24 03
5	2 12	1 22 24	9 14 04	9 12 59	11 21 35	11 20 21	10 24 42	10 25 25
7	4 12	1 22 35	9 14 22	9 14 25	11 23 33	11 22 50	10 26 12	10 27 02
9	7 12	1 22 45	9 14 40	9 15 50	11 25 31	11 25☉19	10 27 55	10 28 51
11	9 12	1 22 56	9 14 57	9 17 15	11 27 29	11 27 47	10 29 50	11 0 52
13	11 12	1 23 07	9 15 13	9 18 40	11 29 27	0 0 16	11 1 57	11 3 04
15	13 12	1 23 19	9 15 29	9 20 05	0 1 24	0 2 45	11 4 13	11 5 25
17	15 12	1 23 31	9 15 44	9 21 31	0 3 21	0 5 13	11 6 39	11 7 55

Ayanamsa on 1st Jan. : 23° 29' 04"

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	भौ ♂ म	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Apr.17	15	12	1 23 31	9 15 44	9 21 31	0 3 21	0 5 13	11 6 39	11 7 55
19	17	12	1 23 43	9 15 59	9 22 56	0 5 19	0 7 42	11 9 14	11 10 34
21	19	12	1 23 55	9 16 13	9 24 21	0 7 16	0 10 10	11 11 57	11 13 21
23	20	12	1 24 07	9 16 27	9 25 46	0 9 13	0 12 38	11 14 47	11 16 15
25	22	12	1 24 20	9 16 40	9 27 11	0 11 10	0 15 06	11 17 46	11 19 18
27	24	12	1 24 33	9 16 52	9 28 37	0 13 06	0 17 35	11 20 51	11 22 27
29	26	12	1 24 46	9 17 01	10 0 02	0 15 03	0 20 03	11 24 04	11 25 44
May 1	28	12	1 24 59	9 17 15	10 1 27	0 17 00	0 22 31	11 27 25	11 29 07
3	1	1	1 25 13	9 17 26	10 2 51	0 18 56	0 24 59	0 0 52	0 2 39
5	3	1	1 25 27	9 17 36	10 4 16	0 20 52	0 27 27	0 4 27	0 6 17
7	5	1	1 25 41	9 17 45	10 5 41	0 22 49	0 29 54	0 8 09	0 10 03
9	7	1	1 25 55	9 17 53	10 7 06	0 24 45	1 2 22	0 11 59	0 13 56
11	10	1	1 26 09	9 18 01	10 8 30	0 26 41	1 4 50	0 15 55	0 17 56
13	12	1	1 26 23	9 18 08	10 9 54	0 28 37	1 7 18	0 19 59	0 22 03
15	13	1	1 26 38	9 18 14	10 11 19	1 0 32	1 9 45	0 24 09	0 26 16
17	15	1	1 26 52	9 18 20	10 12 43	1 2 28	1 12 13	0 28 24	1 0 34
19	17	1	1 27 07	9 18 25	10 14 07	1 4 23	1 14 40	1 2 44	1 4 55
21	19	1	1 27 22	9 18 29	10 15 31	1 6 19	1 17 08	1 7 07	1 9 18
23	21	1	1 27 37	9 18 32	10 16 54	1 8 14	1 19 35	1 11 30	1 13 41
25	23	1	1 27 52	9 18 35	10 18 18	1 10 10	1 22 02	1 15 51	1 18 01
27	25	1	1 28 07	9 18 37	10 19 41	1 12 05	1 24 29	1 20 09	1 22 16
29	27	1	1 28 23	9R18 38	10 21 04	1 14 00	1 26 57	1 24 21	1 26 25
31	29	1	1 28 38	9 18 38	10 22 38	1 15 55	1 29 24	1 28 26	2 0 25
June 2	1	2	1 28 53	9 18 38	10 23 49	1 17 50	2 1 51	2 2 22	2 4 17
4	4	2	1 29 09	9 18 37	10 25 11	1 19 45	2 4 18	2 6 09	2 7 58
6	6	2	1 29 24	9 18 35	10 26 33	1 21 40	2 6 45	2 9 45	2 11 30
8	8	2	1 29 40	9 18 32	10 27 55	1 23 35	2 9 12	2 13 12	2 14 51
10	10	2	1 29 55	9 18 29	10 29 16	1 25 29	2 11 39	2 16 27	2 18 01
12	12	2	2 0 11	9 18 24	11 0 37	1 27 24	2 14 05	2 19 32	2 21 00
14	14	2	2 0 27	9 18 19	11 1 57	1 29 19	2 16 32	2 22 25	2 23 48
16	16	2	2 0 42	9 18 14	11 3 17	2 1 13	2 18 59	2 25 07	2 26 24
18	17	2	2 0 58	9 18 07	11 4 37	2 3 08	2 21 25	2 27 38	2 28 49
20	19	2	2 1 14	9 18 00	11 5 56	2 5 02	2 23 52	2 39 57	3 1 01
22	21	2	2 1 29	9 17 52	11 7 15	2 6 57	2 26 18	3 2 03	3 3 01
24	23	2	2 1 45	9 17 44	11 8 33	2 8 51	2 28 45	3 3 56	3 4 47
26	25	2	2 2 00	9 17 35	11 9 51	2 10 46	3 1 11	3 5 35	3 6 19
28	28	2	2 2 16	9 17 25	11 11 08	2 12 40	3 3 37	3 6 59	3 7 35
30	30	2	2 2 31	9 17 15	11 12 25	2 14 35	3 6 03	3 8 08	3 8 36
July 2	2	3	2 2 47	9 17 04	11 13 41	2 16 29	3 8 29	3 9 00	3 9 19
4	5	3	2 3 02	9 16 52	11 14 56	2 18 23	3 10 56	3 9 34	3 9 44
6	7	3	2 3 17	9 16 40	11 16 11	2 20 18	3 13 22	3R9 50	3 9 51
8	9	3	2 3 32	9 16 28	11 17 25	2 22 12	3 15 47	3 9 47	3 9 39
10	11	3	2 3 47	9 16 15	11 18 38	2 24 07	3 18 13	3 9 26	3 9 08
12	12	3	2 4 02	9 16 01	11 19 50	2 26 01	3 20 39	3 8 47	3 8 21
14	14	3	2 4 17	9 15 47	11 21 02	2 27 55	3 23 05	3 7 51	3 7 19
16	16	3	2 4 32	9 15 33	11 22 12	2 29 50	3 25 30	3 6 43	3 6 05
18	18	3	2 4 46	9 15 18	11 23 22	3 1 44	3 27 55	3 5 25	3 4 45
20	20	3	2 5 01	9 15 04	11 24 31	3 3 39	4 0 21	3 5 04	3 3 23
22	22	3	2 5 15	9 14 49	11 25 39	3 5 33	4 2 46	3 2 43	3 2 06
24	24	3	2 5 29	9 14 33	11 26 45	3 7 28	4 5 11	3 1 30	3 0 59
26	26	3	2 5 43	9 14 18	11 27 51	3 9 23	4 7 36	3 0 30	3 0 06
28	28	3	2 5 57	9 14 02	11 28 55	3 11 17	4 10 01	2 29 47	2 29 33
30	1	4	2 6 11	9 13 47	11 29 59	3 13 12	4 12 26	2D29 25	2 29 22
Aug. 1	3	4	2 6 24	9 13 31	0 1 00	3 15 07	4 14 51	2 29 26	2 29 36

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 29′ 04″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ नि			गु ♃ रु			म ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	3	4	2	6	24	9R	13	31	0	1	00	3	15	07	4	14	51	2	29	26	2	29	36
3	5	4	2	6	37	9	13	16	0	2	01	3	17	02	4	17	15	2	29	52	3	0	15
5	7	4	2	6	51	9	13	00	0	3	00	3	18	57	4	19	40	3	0	44	3	1	20
7	9	4	2	7	03	9	12	45	0	3	57	3	20	52	4	22	04	3	2	02	3	2	51
9	11	4	2	7	16	9	12	30	0	4	53	3	22	47	4	24	28	3	3	46	3	4	47
11	13	4	2	7	28	9	12	15	0	5	48	3	24	42	4	26	52	3	5	54	3	7	06
13	14	4	2	7	41	9	12	00	0	6	40	3	26	37	4	29	16	3	8	25	3	9	48
15	16	4	2	7	52	9	11	46	0	7	31	3	28	32	5	1	40	3	11	17	3	12	50
17	18	4	2	8	04	9	11	31	0	8	20	4	0	27	5	4	03	3	14	28	3	16	10
19	20	4	2	8	15	9	11	18	0	9	07	4	2	23	5	6	27	3	17	55	3	19	43
21	23	4	2	8	27	9	11	04	0	9	52	4	4	18	5	8	50	3	21	34	3	23	28
23	25	4	2	8	37	9	10	51	0	10	35	4	6	14	5	11	13	3	25s	23	3	27	20
25	27	4	2	8	48	9	10	39	0	11	15	4	8	09	5	13	36	3	29	17	4	1	16
27	29	4	2	8	58	9	10	27	0	11	53	4	10	05	5	15	59	4	3	15	4	5	14
29	1	5	2	9	08	9	10	16	0	12	29	4	12	01	5	18	21	4	7	13	4	9	12
31	4	5	2	9	18	9	10	05	0	13	02	4	13	57	5	20	44	4	11	10	4	13	08
Sept. 2	6	5	2	9	27	9	9	55	0	13	32	4	15	53	5	23	06	4	15	04	4	17	00
4	7	5	2	9	36	9	9	46	0	13	59	4	17	50	5	25	28	4	18	55	4	20	49
6	9	5	2	9	45	9	9	37	0	14	24	4	19	46	5	27	50	4	22	42	4	24	33
8	11	5	2	9	53	9	9	29	0	14	45	4	21	43	6	0	11	4	26	24	4	28	13
10	13	5	2	10	01	9	9	21	0	15	04	4	23	39	6	2	32	5	0	02	5	1	49
12	15	5	2	10	08	9	9	14	0	15	19	4	25	36	6	4	53	5	3	35	5	5	20
14	17	5	2	10	16	9	9	08	0	15	31	4	27	32	6	7	14	5	7	04	5	8	46
16	19	5	2	10	22	9	9	03	0	15	40	4	29	29	6	9	34	5	10	28	5	12	08
18	21	5	2	10	29	9	8	59	0	15	45	5	1	26	6	11	55	5	13	48	5	15	26
20	23	5	2	10	35	9	8	55	0R	15	47	5	3	24	6	14	15	5	17	04	5	18r	40
22	26	5	2	10	41	9	8	52	0	15	45	5	5	21	6	16	34	5	20	16	5	21	50
24	28	5	2	10	46	9	8	50	0	15	39	5	7	18	6	18	53	5	23	24	5	24	57
26	30	5	2	10	51	9	8	48	0	15	30	5	9	16	6	21	13	5	26	28	5	27	59
28	2	6	2	10	55	9	D8	48	0	15	18	5	11	14	6	23	31	5	29	29	6	0	58
30	4	6	2	10	59	9	8	48	0	15	02	5	13	12	6	25	50	6	2	26	6	3	53
Oct. 2	6	6	2	11	03	9	8	49	0	14	42	5	15	10	6	28	08	6	5	19	6	6	44
4	8	6	2	11	06	9	8	51	0	14	19	5	17	08	7	0	25	6	8	08	6	9	31
6	9	6	2	11	09	9	8	53	0	13	54	5	19	06	7	2	42	6	10	53	6	12	13
8	11	6	2	11	11	9	8	56	0	13	25	5	21	04	7	4	59	6	13	33	6	14	51
10	13	6	2	11	13	9	9	01	0	12	54	5	23	03	7	7	15	6	16	09	6	17	24
12	15	6	2	11	14	9	9	05	0	12	20	5	25	02	7	9	31	6	18	39	6	19	51
14	18	6	2	11	15	9	9	11	0	11	45	5	27	00	7	11	46	6	21	03	6	22	12
16	20	6	2R	11	15	9	9	17	0	11	07	5	28	59	7	14	01	6	23	19	6	24	24
18	22	6	2	11	15	9	9	25	0	10	29	6	0	58	7	16	15	6	25	27	6	26	28
20	24	6	2	11	15	9	9	32	0	9	49	6	2	58	7	18	28	6	27	25	6	28	20
22	26	6	2	11	14	9	9	41	0	9	09	6	4	57	7	20	41	6	29	11	6	29	58
24	28	6	2	11	13	9	9	50	0	8	28	6	6	56	7	22	53	7	0	42	7	1	20
26	30	6	2	11	11	9	10	00	0	7	48	6	8	56	7	25	05	7	1	54	7	2	22
28	2	7	2	11	09	9	10	11	0	7	08	6	10	56	7	27	15	7	2	43	7	2	58
30	4	7	2	11	06	9	10	22	0	6	29	6	12	56	7	29	25	7R	3	06	7	3	05
Nov. 1	6	7	2	11	03	9	10	35	0	5	52	6	14	56	8	1	34	7	2	56	7	2s	38
3	8	7	2	11	00	9	10	47	0	5	17	6	16	56	8	3	42	7	2	10	7	1	33
5	10	7	2	10	56	9	11	01	0	4	44	6	18	56	8	5	49	7	0	46	6	29	50
7	12	7	2	10	52	9	11	15	0	4	13	6	20	56	8	7	55	6	28	45	6	27	34
9	14	7	2	10	47	9	11	29	0	3	45	6	22	57	8	9	59	6	26	18	6	24	59
11	16	7	2	10	42	9	11	45	0	3	20	6	24	57	8	12	03	6	23	39	6	22	21
13	18	7	2	10	36	9	12	00	0	2	57	6	26	58	8	14	04	6	21	08	6	20	02
15	21	7	2	10	30	9	12	17	0	2	38	6	28	59	8	16	05	6	19r	05	6	18	18

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	21	7	2R 10 30	9 12 17	0R 2 38	6 28 59	8 16 05	6R 19 05	6 18 18
17	23	7	2 10 24	9 12 34	0 2 22	7 1 00	8 18 03	6 17 42	6 17 18
19	25	7	2 10 17	9 12 51	0 2 09	7 3 01	8 20 01	6D 17 05	6 17 04
21	27	7	2 10 10	9 13 09	0 1 59	7 5 02	8 21 56	6 17 14	6 17 34
23	29	7	2 10 03	9 13 28	0 1 52	7 7 03	8 23 49	6 18 03	6 18 40
25	1	8	2 9 56	9 13 47	0 1 49	7 9 05	8 25 40	6 19 24	6 20 15
27	3	8	2 9 48	9 14 07	0D 1 49	7 11 06	8 27 29	6 21 12	6 22 14
29	4	8	2 9 40	9 14 27	0 1 52	7 13 08	8 29 15	6 23 20	6 24 29
Dec. 1	6	8	2 9 31	9 14 47	0 1 58	7 15 09	9 0 58	6 25 42	6 26 58
3	8	8	2 9 22	9 16 08	0 2 08	7 17 11	9 2 39	6 28 16	6 29 37
5	10	8	2 9 14	9 15 30	0 2 20	7 19 13	9 4 16	7 0 59	7 2 22
7	12	8	2 9 04	9 15 51	0 2 35	7 21 14	9 5 49	7 3 47	7 5 12
9	14	8	2 8 55	9 16 14	0 2 53	7 23 16	9 7 19	7 6 39	7 8 07
11	17	8	2 8 46	9 16 36	0 3 14	7 25 18	9 8 44	7 9 35	7 11 04
13	19	8	2 8 36	9 16 59	0 3 37	7 27 20	9 10 05	7 12 33	7 14 03
15	21	8	2 8 26	9 17 23	0 4 02	7 29 22	9 11 21	7 15 33	7 17 04
17	23	8	2 8 17	9 17 47	0 4 30	8 1 24	9 12 32	7 18 34	7 20 06
19	25	8	2 8 07	9 18 11	0 5 00	8 3 26	9 13 37	7 21 37	7 23 09
21	27	8	2 7 57	9 18 35	0 5 32	8 5 29	9 14 36	7 24 41	7 26 13
23	29	8	2 7 47	9 19 00	0 6 06	8 7 31	9 15 28	7 27 45	7 29 18
25	1	9	2 7 37	9 19 25	0 6 42	8 9 33	9 16 13	8 0 51	8 2 24
27	3	9	2 7 27	9 19 50	0 7 20	8 11 36	9 16 50	8 3 57	8 5 30
29	4	9	2 7 17	9 20 16	0 8 00	8 13 38	9 17 19	8 7 04	8 8 38
31	6	9	2 7 07	9 20 42	0 8 41	8 15 40	9 17 40	8 10 13	8 11 47
Jan. 2	8	9	2 6 58	9 21 08	0 9 24	8 17 42	9 17 51	8 13 22	8 14 58

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	8 23 23	8 23 46	5 29 15	7 12 45	5R 10 56	23 29 04
February	1	8 23 21	8 22 07	5R 29 34	7 13 35	5 10 46	23 29 09
March	1	8 22 04	8 20 39	5 29 06	7R 13 55	5 10 12	23 29 13
April	1	8 18 56	8 19 00	5 27 58	7 13 49	5 9 23	23 29 16
May	1	8 15 52	8 17 25	5 26 43	7 13 16	5 8 38	23 29 19
June	1	8 14 21	8 15 46	5 25 44	7 12 28	5 8 13	23 29 24
July	1	8 14 14	8 14 11	5D 25 27	7 11 43	5D 8 17	23 29 29
August	1	8 14 02	8 12 32	5 25 58	7 11 15	5 8 51	23 29 32
September	1	8 12 19	8 10 53	5 27 15	7D 11 14	5 9 49	23 29 38
October	1	8 9 09	8 9 18	5 28 57	7 11 43	5 10 55	23 29 41
November	1	8 6 11	8 7 39	6 0 52	7 12 38	5 12 03	23 29 45
December	1	8 5 04	8 6 04	6 2 35	7 13 43	5 12 53	23 29 49
January	1	8 5 06	8 4 26	6 3 50	7 14 50	5 13 19	23 29 55

Combustion or Heliacal Setting of Planets

Saturn : From May 30 to July 2.
Jupiter : Upto Jan. 23.
Mars : — —
Venus : From Mar. 1 to May 3.
Mercury : From Jan. 9 to Feb. 11, Mar. 7 to Mar. 21, May 5 to May 28, July 9 to July 28, Aug. 23 to Sept. 21, Nov. 2 to Nov. 15 Dec. 21 to Jan. 24 (1974).

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Mar. 4,	18	30	11	5	06	Mar. 27,	13	53	10	21	31
	July. 6,	22	31	3	9	50	July 30,	27	10	2	29	22
	Oct. 30,	15	52	7	3	05	Nov. 19,	19	51	6	17	04
Venus	—	—			—		—	—			—	
Mars	Sept. 19,	28	45	0	15	47	Nov. 26,	5	38	0	1	48
Jupiter	May 30,	27	38	9	18	38	Sept. 28,	18	54	9	3	48
Saturn	—	—			—		Feb. 13,	18	12	1	20	09
	Oct. 17,	11	08	2	11	15	—	—			—	
Uranus	Jan. 27,	10	54	5	29	35	June 26,	27	26	5	25	27
Neptune	Mar. 9,	19	59	7	13	57	Aug. 16,	21	05	7	11	11
Pluto	Jan. 6,	12	43	5	10	56.	June 11,	25	14	5	8	11

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	4	21	12	Pauṣa	Sukla	Jan.	18	26	53	Māgha	Vadi
Feb.	3	14	53	Māgha	"	Feb.	17	15	37	Phālguna	"
Mar.	5	5	37	Caitra	"	Mar.	18	29	03	Caitra	"
Apr.	3	17	15	Phālguna	"	Apr.	17	19	21	Vaiśakha	"
May	2	26	25	Vaiśākha	"	May	17	10	28	Jyaiṣṭha	"
June	1	10	04	Jyaiṣṭha	"	June	15	26	05	Āṣāḍha	"
June	30	17	09	Āṣāḍha	"	July	15	17	26	Śrāvaṇa	"
July	29	24	29	Śravana	"	Aug.	14	7	47	Bhādra	"
Aug.	28	8	55	Bhādra	"	Sept.	12	20	46	Āśvina	"
Sept.	26	19	24	Āśvina	"	Oct.	12	8	39	Kārtika	"
Oct.	26	8	47	Kārtika	"	Nov.	10	19	57	Agrahā	"
Nov.	24	25	25	Mārga	"	Dec.	10	7	04	Pauṣa	"
Dec.	24	20	37	Pauṣa	"					—	

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	24	43	Karkaṭa	on	July	16	9	44
Kumbha	on	Feb.	12	13	40	Siṁha	on	Aug.	16	18	09
Mina	on	Mar.	14	10	34	Kanyā	on	Sept.	16	18	04
Meṣa	on	Apr.	13	19	08	Tulā	on	Oct.	17	6	00
Vṛṣa	on	May	14	16	06	Vṛścika	on	Nov.	16	5	45
Mithuna	on	June	14	22	48	Dhanus	on	Dec.	15	20	22

1974 A.D. Longitude of Moon CONDENSED

Saka era 1895-96, Samvat 2030-31 (Mar. 24, Nov. 15), B.S. 1380-81 (Apr. 15), Kollam era 1149-50 (Aug. 17), 48 Ānanda (Mar. 24, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 30	14 9	10 12 59	10 25 15	11 7 47	11 20 39	0 3 54	0 17 34	1 1 42
Jan. 6	21 9	1 16 15	2 1 10	2 16 20	3 1 37	3 16 49	4 1 47	4 16 23
13	28 9	5 0 32	5 14 13	5 27 27	6 10 15	6 22 43	7 4 54	7 16 53
20	6 10	7 28 44	8 10 32	8 22 19	9 4 07	9 15 59	9 27 57	10 10 02
27	13 10	10 22 16	11 4 40	11 17 16	0 0 08	0 13 17	0 26 47	1 10 39
Feb. 3	20 10	1 24 54	2 9 31	2 24 26	3 9 32	3 24 41	4 9 42	4 24 26
10	27 10	5 8 45	5 22 37	6 5 58	6 18 53	7 1 23	7 13 34	7 25 32
17	5 11	8 7 21	8 19 07	9 0 54	9 12 46	9 24 45	10 6 53	10 19 11
24	12 11	11 1 40	11 14 20	11 27 11	0 10 13	0 23 29	1 6 58	1 20 43
Mar. 3	19 11	2 4 44	2 19 01	3 2 34	3 18 17	4 3 05	4 17 50	5 2 23
10	26 11	5 16 38	6 0 29	6 13 54	6 26 52	7 9 26	7 21 41	8 3 41
17	3 12	8 15 32	8 27 20	9 9 09	9 21 04	10 3 10	10 15 28	10 27 59
24	10 12	11 10 46	11 23 46	0 6 58	0 20 21	1 3 55	1 17 37	2 1 28
31	17 12	2 15 27	2 29 35	3 13 50	3 28 09	4 12 31	4 26 49	5 10 59
Apr. 7	24 12	5 24 54	6 8 31	6 21 46	7 4 40	7 17 14	7 29 29	8 11 31
14	31 12	8 23 24	9 5 14	9 17 05	9 29 04	10 11 13	10 23 37	11 6 19
21	7 1	11 19 19	0 2 38	0 16 12	1 0 00	1 13 59	1 28 04	2 12 14
28	14 1	2 26 25	3 10 36	3 24 45	4 8 50	4 22 50	5 6 42	5 20 24
May 5	21 1	6 3 53	6 17 07	7 0 04	7 12 46	7 25 11	8 7 23	8 19 24
12	28 1	9 1 17	9 13 07	9 25 00	10 6 59	10 19 09	11 1 35	11 14 20
19	5 2	11 27 27	0 10 56	0 24 47	1 8 56	1 23 19	2 7 51	2 22 26
26	12 2	3 6 59	3 21 24	4 5 39	4 19 42	5 3 30	5 17 04	6 0 23
June 2	19 2	6 13 27	6 26 18	7 8 55	7 21 20	8 3 34	8 15 38	8 27 35
9	26 2	9 9 27	9 21 17	10 3 09	10 15 08	10 27 17	11 9 41	11 22 25
16	1 3	0 5 31	0 19 01	1 2 58	1 17 18	2 1 57	2 16 50	3 1 49
23	8 3	3 16 45	4 1 31	4 16 00	5 0 10	5 13 57	5 27 22	6 10 28
30	15 3	6 23 15	7 5 48	7 18 03	8 0 18	8 12 20	8 24 17	9 6 09
July 7	22 3	9 18 00	9 29 51	10 11 45	10 23 45	11 5 54	11 18 16	0 0 56
14	29 3	0 13 56	0 27 22	1 11 13	1 25 32	2 10 15	2 25 17	3 10 29
21	4 4	3 25 42	4 10 46	4 25 31	5 9 51	5 23 45	6 7 11	6 20 12
28	11 4	7 2 52	7 15 14	7 27 24	8 9 24	8 21 18	9 3 09	9 15 00
Aug. 4	18 4	9 26 51	10 8 46	10 20 44	11 2 49	11 15 02	11 27 27	0 10 06
11	25 4	0 23 03	1 6 21	1 20 04	2 4 12	2 18 46	3 3 42	3 18 53
18	1 5	4 4 08	4 19 18	5 4 12	5 18 42	6 2 43	6 16 14	6 29 18
25	8 5	7 11 57	7 24 17	8 6 22	8 18 18	9 0 09	9 11 59	9 23 50
Sept. 1	15 5	10 5 45	10 17 46	10 29 53	11 12 09	11 24 32	0 7 06	0 19 52
8	22 5	1 2 52	1 16 09	1 29 45	2 13 43	2 28 02	3 12 44	3 27 36
15	29 5	4 12 38	4 27 39	5 12 28	5 26 56	6 10 59	6 24 34	7 7 42
22	5 6	7 20 24	8 2 45	8 14 52	8 26 48	9 8 39	9 20 29	10 2 23
29	12 6	10 14 23	10 26 32	11 8 51	11 21 21	0 4 01	0 16 52	0 29 54
Oct. 6	19 6	1 13 07	1 26 33	2 10 13	2 24 07	3 8 15	3 22 36	4 7 08
13	26 6	4 21 46	5 6 23	5 20 52	6 5 06	6 18 59	7 2 30	7 15 36
20	2 7	7 28 20	8 10 44	8 22 52	9 4 50	9 16 43	9 28 35	10 10 30
27	9 7	10 22 34	11 4 50	11 17 19	0 0 02	0 13 01	0 26 13	1 9 39
Nov. 3	16 7	1 23 16	2 7 04	2 20 59	3 5 01	3 19 09	4 3 21	4 17 35
10	23 7	5 1 47	5 15 55	5 29 55	6 13 43	6 27 16	7 10 31	7 23 28
17	1 8	8 6 08	8 18 30	9 0 40	9 12 30	9 24 32	10 6 24	10 18 20
24	8 8	11 0 24	11 12 40	11 25 13	0 8 04	0 21 16	1 4 48	1 18 38
Dec. 1	15 8	2 2 43	2 17 00	3 1 22	3 15 47	4 0 08	4 14 24	4 28 30
8	22 8	5 12 27	5 26 11	6 9 44	6 23 04	7 6 11	7 19 05	8 1 45
15	29 8	8 14 13	8 26 30	9 8 36	9 20 34	10 2 26	10 14 18	10 26 12
22	6 9	11 8 13	11 20 26	0 2 55	0 15 45	0 29 00	1 12 39	1 26 44
29	13 9	2 11 11	2 25 55	3 10 47	3 25 41	4 10 27	4 24 59	5 9 13
Jan. 5	20 9	5 23 07	6 6 41	6 19 57	7 2 56	7 15 41	7 28 14	8 10 37

Longitudes of Planets

1974 A.D.

Ayanamsa on 1st Jan. : 23° 29′ 55″

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	7	9	2	R7	03	9	20	55	0	9	03	8	16	41	9	17	46	8	11s	47	8	13	22
3	9	9	2	6	53	9	21	21	0	9	47	8	18	44	9	R17	52	8	14	58	8	16	33
5	11	9	2	6	43	9	21	48	0	10	32	8	20	46	9	17	49	8	18	10	8	19	46
7	14	9	2	6	34	9	22	14	0	11	18	8	22	48	9	17	35	8	21	23	8	23	00
9	16	9	2	6	25	9	22	41	0	12	06	8	24	50	9	17	11	8	24☌	38	8	26	16
11	18	9	2	6	16	9	23	08	0	12	56	8	26	53	9	16	37	8	27	54	8	29	33
13	21	9	2	6	07	9	23	36	0	13	46	8	28	55	9	15	54	9	1	12	9	2	52
15	23	9	2	5	58	9	24	03	0	14	38	9	0	57	9	15	02	9	4	33	9	6	13
17	25	9	2	5	50	9	24	31	0	15	30	9	2	59	9	14	02	9	7	55	9	9	36
19	26	9	2	5	42	9	24	59	0	16	24	9	5	02	9	12s	56	9	11	18	9	13	01
21	28	9	2	5	34	9	25	27	0	17	18	9	7	04	9	11	46	9	14	43	9	16	26
23	30	9	2	5	27	9	25	55	0	18	14	9	9	06	9	10☌	33	9	18	10	9	19r	53
25	2	10	2	5	19	9	26	23	0	19	10	9	11	08	9	9r	19	9	21	36	9	23	20
27	4	10	2	5	12	9	26	51	0	20	08	9	13	10	9	8	07	9	25	03	9	26	45
29	6	10	2	5	06	9	27	20	0	21	06	9	15	12	9	6	57	9	28	27	10	0	08
31	8	10	2	5	00	9	27	48	0	22	05	9	17	14	9	5	53	10	1	47	10	3	25
Feb. 2	10	10	2	4	54	9	28s	17	0	23	04	9	19	16	9	4	55	10	5	01	10	6	35
4	12	10	2	4	49	9	28	45	0	24	04	9	21	17	9	4	06	10	8	06	10	9	33
6	14	10	2	4	44	9	29	14	0	25	05	9	23	19	9	3	25	10	10	55	10	12	14
8	17	10	2	4	39	9	29	43	0	26	07	9	25	20	9	2	53	10	13	26	10	14	32
10	19	10	2	4	35	10	0	11	0	27	09	9	27	22	9	2	32	10	15	31	10	16	23
12	21	10	2	4	31	10	0☌	40	0	28	11	9	29	23	9	2	20	10	17	05	10	17	39
14	23	10	2	4	28	10	1	09	0	29	15	10	1	25	9	D2	19	10	18	03	10	R18	17
16	25	10	2	4	25	10	1	38	1	0	18	10	3	26	9	2	27	10	18	20	10	18	13
18	27	10	2	4	22	10	2	07	1	1	22	10	5	27	9	2	44	10	17	56	10	17s	28
20	28	10	2	4	20	10	2	35	1	2	27	10	7	28	9	3	10	10	16	52	10	16	07
22	30	10	2	4	19	10	3	04	1	3	32	10	9	29	9	3	45	10	15	15	10	14	18
24	2	11	2	4	18	10	3	33	1	4	37	10	11	30	9	4	27	10	13☌	16	10	12	12
26	4	11	2	4	17	10	4	01	1	5	43	10	13	31	9	5	16	10	11	07	10	10	02
28	6	11	2	D4	17	10	4	30	1	6	49	10	15	31	9	6	12	10	9	00	10	8	01
Mar. 2	8	11	2	4	17	10	4r	58	1	7	56	10	17	32	9	7	14	10	7	07	10	6r	18
4	10	11	2	4	18	10	5	27	1	9	02	10	19	32	9	8	22	10	5	35	10	4	59
6	13	11	2	4	19	10	5	55	1	10	10	10	21	32	9	9	35	10	4	29	10	4	06
8	15	11	2	4	21	10	6	23	1	11	17	10	23	32	9	10	53	10	3	50	10	D3	41
10	17	11	2	4	23	10	6	51	1	12	25	10	25	32	9	12	16	10	3	38	10	3	42
12	19	11	2	4	25	10	7	19	1	13	33	10	27	32	9	13	42	10	3	51	10	4	07
14	21	11	2	4	28	10	7	47	1	14	41	10	29	33	9	15	13	10	4	27	10	4	53
16	23	11	2	4	31	10	8	15	1	15	49	11	1	31	9	16	47	10	5	23	10	5	57
18	25	11	2	4	35	10	8	43	1	16	58	11	3	31	9	18	25	10	6	36	10	7	19
20	27	11	2	4	39	10	9	10	1	18	07	11	5	30	9	20	06	10	8	05	10	8	55
22	29	11	2	4	44	10	9	37	1	19	16	11	7	29	9	21	49	10	9	48	10	10	44
24	1	12	2	4	49	10	10	04	1	20	26	11	9	28	9	23	35	10	11	43	10	12	45
26	3	12	2	4	55	10	10	31	1	21	35	11	11	27	9	25	23	10	13	49	10	14	56
28	5	12	2	5	01	10	10	58	1	22	45	11	13	26	9	27	14	10	16	04	10	17	16
30	7	12	2	5	07	10	11	24	1	23	55	11	15	25	9	29	06	10	18	29	10	19	44
Apr. 1	9	12	2	5	14	10	11	50	1	25	05	11	17	23	10	1	01	10	21	01	10	22	20
3	11	12	2	5	21	10	12	16	1	26	15	11	19	22	10	2	57	10	23	41	10	25	04
5	13	12	2	5	28	10	12	42	1	27	25	11	21	20	10	4	55	10	26	28	10	27	54
7	16	12	2	5	36	10	13	07	1	28	36	11	23	18	10	6	54	10	29	22	11	0	51
9	18	12	2	5	44	10	13	32	1	29	47	11	25	16	10	8	55	11	2	22	11	3	55
11	20	12	2	5	53	10	13	57	2	0	57	11	27	14	10	10	57	11	5	29	11	7	05
13	22	12	2	6	02	10	14	22	2	2	08	11	29	11	10	13	00	11	8	42	11	10	21
15	23	12	2	6	11	10	14	46	2	3	19	0	1	09	10	15	05	11	12	01	11	13	43
17	25	12	2	6	20	10	15	10	2	4	31	0	3	06	10	17	11	11	15s	27	11	17	12

1974 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 29′ 55″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr. 17	25	12	2	6	20	10	15	10	2	4	31	0	3	06	10	17	11	11	15s	27	11	17	12
19	27	12	2	6	30	10	15	33	2	5	42	0	5	04	10	19	17	11	18	59	11	20	48
21	29	12	2	6	40	10	15	57	2	6	53	0	7	01	10	21	25	11	22	38	11	24	29
23	1	1	2	6	51	10	16	19	2	8	05	0	8	58	10	23	33	11	26	23	11	28	18
25	3	1	2	7	02	10	16	42	2	9	16	0	10	55	10	25	43	0	0	14	0	2	13
27	5	1	2	7	13	10	17	04	2	10	28	0	12	52	10	27	53	0	4	12	0	6	14
29	8	1	2	7	24	10	17	26	2	11	40	0	14	48	11	0	04	0	8	16	0	10	21
May 1	10	1	2	7	36	10	17	47	2	12	52	0	16	45	11	2	15	0	12	26	0	14	33
3	12	1	2	7	48	10	18	08	2	14	01	0	18	41	11	4	27	0	16	41	0	18⊚	49
5	14	1	2	8	00	10	18	29	2	15	16	0	20	38	11	6	40	0	20	59	0	23	09
7	16	1	2	8	12	10	18	49	2	16	28	0	22	34	11	8	53	0	25	19	0	27	29
9	18	1	2	8	25	10	19	08	2	17	40	0	24	30	11	11	07	0	29	39	1	1	48
11	20	1	2	8	37	10	19	27	2	18	52	0	26	26	11	13	21	1	3	57	1	6	04
13	22	1	2	8	50	10	19	46	2	20	05	0	28	22	11	15	36	1	8	10	1	10	14
15	24	1	2	9	04	10	20	04	2	21	17	1	0	17	11	17	52	1	12	16	1	14	16
17	25	1	2	9	17	10	20	22	2	22	30	1	2	13	11	20	08	1	16	14	1	18	09
19	27	1	2	9	31	10	20	39	2	23	42	1	4	09	11	22	24	1	20	02	1	21	52
21	30	1	2	9	45	10	20	56	2	24	55	1	6	04	11	24	40	1	23	39	1	25	23
23	2	2	2	9	59	10	21	12	2	26	08	1	8	00	11	26	57	1	27	04	1	28	42
25	4	2	2	10	13	10	21	27	2	27	20	1	9	55	11	29	15	2	0	16	2	1	48
27	6	2	2	10	27	10	21	42	2	28	33	1	11	50	0	1	32	2	3	16	2	4	41
29	8	2	2	10	41	10	21	56	2	29	46	1	13	46	0	3	50	2	6	03	2	7	21
31	11	2	2	10	56	10	22	10	3	0	59	1	15	41	0	6	09	2	8	36	2	9	48
June 2	13	2	2	11	11	10	22	23	3	2	12	1	17	36	0	8	27	2	10	56	2	12	01
4	15	2	2	11	26	10	22	36	3	3	25	1	19	30	0	10	46	2	13	01	2	13	59
6	17	2	2	11	41	10	22	48	3	4	38	1	21	25	0	13	05	2	14	52	2	15	42
8	18	2	2	11	56	10	22	59	3	5	52	1	23	20	0	15	25	2	16	27	2	17	09
10	20	2	2	12	11	10	23	09	3	7	05	1	25	15	0	17	44	2	17	46	2	18	19
12	22	2	2	12s	26	10	23	19	3	8	18	1	27	09	0	20	04	2	18	48	2	19	13
14	24	2	2	12	41	10	23	28	3	9	32	1	29	04	0	22	24	2	19	33	2	19	49
16	26	2	2	12	57	10	23	37	3	10	45	2	0	59	0	24	45	2	20	00	2	R20	06
18	28	2	2	13	12	10	23	45	3	11	59	2	2	53	0	27	06	2	20	08	2	20	06
20	30	2	2	13	27	10	23	52	3	13	12	2	4	48	0	29	27	2	19s	59	2	19	48
22	3	3	2	13	43	10	23	58	3	14	26	2	6	43	1	1	48	2	19	32	2	19	13
24	5	3	2	13	59	10	24	04	3	15	40	2	8	37	1	4	09	2	18	50	2	18	24
26	7	3	2	14	14	10	24	09	3	16	54	2	10	32	1	6	30	2	17	55	2	17	23
28	9	3	2	14	30	10	24	13	3	18	08	2	12	26	1	8	52	2	16	49	2	16	14
30	11	3	2	14⊚	45	10	24	16	3	19	22	2	14	20	1	11	14	2	15⊚	39	2	15	02
July 2	13	3	2	15	01	10	24	19	3	20	36	2	16	15	1	13	36	2	14	27	2	13	52
4	15	3	2	16	17	10	24	20	3	21	50	2	18	09	1	15	58	2	13	19	2	12	48
6	17	3	2	15	32	10R	21	21	3	23	04	2	20	03	1	18	21	2	12	20	2	11	55
8	19	3	2	15	48	10	24	22	3	24	18	2	21	58	1	20	44	2	11	34	2	11	17
10	20	3	2	16	03	10	24	21	3	25	33	2	23	52	1	23	06	2	11r	04	2	10	56
12	22	3	2	16	19	10	24	20	3	26	47	2	25	47	1	25	30	2D	10	53	2	10	56
14	24	3	2	16	31	10	24	18	3	28	01	2	27	41	1	27	53	2	11	03	2	11	16
16	26	3	2	16r	50	10	24	15	3	29	16	2	29	36	2	0	16	2	11	34	2	11	58
18	29	3	2	17	05	10	24	11	4	0	31	3	1	30	2	2	40	2	12	27	2	13	02
20	1	4	2	17	20	10	24	07	4	1	45	3	3	24	2	5	04	2	13	48	2	14	28
22	3	4	2	17	35	10	24	02	4	3	00	3	5	19	2	7	28	2	15	19	2	16	15
24	6	4	2	17	51	10	23	56	4	4	15	3	7	14	2	9	52	2	17	16	2	18	23
26	8	4	2	18	06	10	23	49	4	5	30	3	9	08	2	12	17	2	19	34	2	20	51
28	10	4	2	18	20	10	23	42	4	6	45	3	11	03	2	14	41	2	22	12	2	23	38
30	12	4	2	18	35	10	23	34	4	8	00	3	12	58	2	17	06	2	25	09	2	26	44
Aug. 1	14	4	2	18	50	10	23	25	4	9	15	3	14	52	2	19	31	2	28	23	3	0	05

Ayanamsa on 1st Jan. : 23° 29′ 55″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	गु ♃ रु	म ♂ ग	र ☉ व	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	14	4	2 18 50	10R23 25	4 9 15	3 14 52	2 19 31	2 28 23	3 0 05
3	15	4	2 19 04	10 23 15	4 10 31	3 16 47	2 21 56	3 1 52	3 3 41
5	17	4	2 19 19	10 23 05	4 11 46	3 18 42	2 24 21	3 5 34	3 7 29
7	19	4	2 19 33	10 22 55	4 13 02	3 20 37	2 26 46	3 9 26	3 11s25
9	21	4	2 19 47	10 22 43	4 14 17	3 22 32	2 29 12	3 13 26	3 15 28
11	23	4	2 20 01	10 22 31	4 15 33	3 24 27	3 1 38	3 17 30	3 19 33
13	25	4	2 20 15	10 22 19	4 16 49	3 26 22	3 4 04	3 21 37	3 23 40
15	27	4	2 20 28	10 22 06	4 18s05	3 28 18	3 6 30	3 25 42	3 27 45
17	30	4	2 20 42	10 21 53	4 19 21	4 0 13	3 8 57	3 29☌46	4 1 47
19	2	5	2 20 55	10 21 39	4 20 37	4 2 08	3 11 23	4 3 46	4 5 45
21	4	5	2 21 08	10 21 24	4 21 53	4 4 04	3 13 50	4 7 42	4 9 39
23	6	5	2 21 20	10 21 10	4 23 09	4 5 59	3 16 17	4 11 34	4 13 27
25	8	5	2 21 33	10 20 55	4 24 26	4 7 55	3 18 44	4 15 20	4 17 11
27	10	5	2 21 45	10 20 40	4 25 42	4 9 51	3 21 11	4 19 00	4 20 49
29	12	5	2 21 57	10 20 24	4 26 59	4 11 47	3 23 38	4 22 36	4 24 21
31	14	5	2 22 09	10 20 09	4 28 16	4 13 43	3 26 06	4 26 06	4 27r49
Sept. 2	16	5	2 22 20	10 19 53	4 29 33	4 15 39	3 28 33	4 29 31	5 1 12
4	18	5	2 22 32	10 19☍37	5 0 49	4 17 35	4 1 01	5 2 51	5 4 29
6	19	5	2 22 43	10 19 21	5 2 07	4 19 31	4 3 29	5 6 06	5 7 42
8	21	5	2 22 53	10 19 05	5 3 24	4 21 28	4 5 57	5 9 17	5 10 50
10	24	5	2 23 04	10 18 49	5 4 41	4 23 24	4 8 25	5 12 22	5 13 54
12	26	5	2 23 14	10 18 34	5 5 59	4 25 21	4 10 54	5 15 24	5 16 53
14	28	5	2 23 24	10 18 18	5 7 16	4 27 18	4 13 22	5 18 20	5 19 47
16	30	5	2 23 33	10 18 03	5 8 34	4 29 15	4 15 51	5 21 12	5 22 36
18	3	5	2 23 42	10 17 47	5 9 52	5 1 12	4 18 20	5 23 59	5 25 21
20	5	5	2 23 51	10 17 33	5 11 10	5 3 09	4 20 49	5 26 41	5 28 00
22	7	5	2 23 59	10 17 18	5 12 28	5 5 06	4 23 18	5 29 17	6 0 33
24	9	5	2 24 07	10 17 01	5 13 46	5 7 01	4 25 47	6 1 48	6 3 01
26	10	5	2 24 15	10 16 50	5 15 04	5 9 01	4 28 16	6 4 12	6 5 21
28	12	5	2 24 22	10 16 37	5 16 23	5 10 59	5 0 45	6 6 29	6 7 34
30	14	5	2 24 29	10 16 24	5 17 42	5 12 57	5 3 15	6 8 37	6 9 38
Oct. 2	16	5	2 24 36	10 16 12	5 19 00	5 14 55	5 5 44	6 10 36	6 11 31
4	18	5	2 24 42	10 16 00	5 20 19	5 16 53	5 8 14	6 12 24	6 13 13
6	20	5	2 24 48	10 15 49	5 21 38	5 18 51	5 10 44	6 13 58	6 14 40
8	22	5	2 24 53	10 15 38	5 22 57	5 20 49	5 13 14	6 15 17	6 15 50
10	24	5	2 24 58	10 15 29	5 24 17	5 22 48	5 15 43	6 16 17	6 16 39
12	27	5	2 25 03	10 15 19	5 25 36	5 24 47	5 18 13	6 16 55	6R17 05
14	29	5	2 25 07	10 15 11	5 26☌56	5 26 45	5 20s43	6 17 07	6 17s03
16	1	6	2 25 10	10 15 03	5 28 16	5 28 44	5 23 14	6 16 49	6 16 27
18	3	6	2 25 14	10 14 56	5 29 36	6 0 43	5 25 44	6 15 57	6 15 19
20	5	6	2 25 16	10 14 50	6 0 56	6 2 43	5 28 14	6 14 32	6 13 37
22	7	6	2 25 19	10 14 45	6 2 16	6 4 42	6 0 44	6 12 34	6 11 26
24	9	6	2 25 21	10 14 40	6 3 37	6 6 41	6 3 15	6 10 13	6 8☌57
26	11	6	2 25 22	10 14 36	6 4 57	6 8 41	6 5 45	6 7 42	6 6 28
28	13	6	2 25 23	10 14 33	6 6 18	6 10 41	6 8 15	6 5 18	6 4 14
30	14	6	2R25 24	10 14 31	6 7 38	6 12 40	6 10 46	6 3r19	6 2 33
Nov. 1	16	6	2 25 24	10 14 29	6 8 59	6 14 40	6 13 16	6 1 58	6 1 35
3	19	6	2 25 24	10D14 29	6 10 20	6 16 40	6 15 47	6D1 23	6 1 22
5	21	6	2 25 23	10 14 29	6 11 42	6 18 41	6 18☌17	6 1 33	6 1 54
7	23	6	2 25 22	10 14 30	6 13 03	6 20 41	6 20 48	6 2 25	6 3 04
9	25	6	2 25 20	10 14 32	6 14 25	6 22 41	6 23 18	6 3 51	6 4 45
11	27	6	2 25 18	10 14 34	6 15 47	6 24 42	6 25 49	6 5 46	6 6 52
13	29	6	2 25 15	10 14 38	6 17 09	6 26 43	6 28 20	6 8 02	6 9 16
15	1	7	2 25 12	10 14 42	6 18 31	6 28 44	7 0 50	6 10 34	6 11 55

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	1	7	2R25 12	10 14 42	6 18s31	6 28 44	7 0s50	6 10 34	6 11 55
17	3	7	2 25 09	10 14 47	6 19 53	7 0 45	7 3 21	6 13 18	6 14 43
19	5	7	2 25 05	10 14 53	6 21 15	7 2 46	7 5 52	6 16 09	6 17 38
21	7	7	2 25 01	10 15 00	6 22 38	7 4 47	7 8 23	6 19 07	6 20 37
23	9	7	2 24 56	10 15 07	6 24 01	7 6 48	7 10 53	6 22 08	6 23 40
25	11	7	2 24 51	10 15 15	6 25 24	7 8 49	7 13 24	6 25 12	6 26 45
27	13	7	2 24 46	10 15 24	6 26r47	7 10 51	7 15 55	6 28 18	6 29 51
29	15	7	2 24 40	10 15 34	6 28 10	7 12 52	7 18 25	7 1 24	7 2 58
Dec. 1	17	7	2 24 34	10 15 44	6 29 33	7 14 54	7 20 56	7 4s31	7 6 05
3	19	7	2 24 27	10 15 55	7 0 57	7 16 55	7 23 27	7 7 38	7 9 12
5	21	7	2 24 20	10 16 07	7 2 20	7 18 57	7 25r58	7 10 46	7 12 20
7	24	7	2 24 13	10 16 20	7 3 44	7 20 59	7 28 28	7 13 53	7 15 27
9	26	7	2 24 05	10 16 33	7 5 08	7 23 01	8 0 59	7 17 01	7 18 35
11	28	7	2 23 57	10 16 47	7 6 33	7 25 03	8 3 30	7 20 09	7 21 43
13	30	7	2 23 49	10 17 01	7 7 57	7 27 05	8 6 01	7 23 17	7 24 51
15	2	8	2 23 41	10 17 16	7 9 22	7 29 07	8 8 31	7 26 25	7 27 59
17	4	8	2 23 32	10 17 32	7 10 46	8 1 09	8 11 02	7 29 34	8 1 08
19	5	8	2 23 23	10 17 48	7 12 11	8 3 11	8 13 33	8 2 43	8 4 18
21	7	8	2 23 14	10 18 05	7 13 36	8 5 13	8 16 04	8 5 02	8 7 28
23	9	8	2 23 05	10 18 23	7 15 01	8 7 15	8 18 34	8 9 03	8 10 39
25	11	8	2 22 56	10 18 41	7 16 27	8 9 17	8 21 05	8 12 14	8 13 50
27	13	8	2 22 46	10 18 59	7 17 52	8 11 20	8 23 36	8 15 27	8 17 03
29	15	8	2 22 36	10 19 19	7 19 18	8 13 22	8 26 06	8 18 40	8 20 17
31	18	8	2 22 27	10 19 38	7 20 44	8 15 24	8 28 37	8 21 54	8 23 32
Jan. 2	20	8	2 22 17	10 19 58	7 22 10	8 17 26	9 1 07	8 25 10	8 26 48

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	8 5 06	8 4 26	6 3 50	7 14 50	5 13 19	23 29 55
February	1	8 4 22	8 2 47	6R 4 17	7 15 42	5 13 10	23 30 00
March	1	8 2 01	8 1 18	6 3 56	7 16 05	5 12 39	23 30 03
April	1	7 28 32	7 29 39	6 2 53	7 16 01	5 11 49	23 30 07
May	1	7 26 20	7 28 04	6 1 37	7 15 29	5 11 04	23 30 10
June	1	7 25 49	7 26 26	6 0 33	7 14 41	5 10 37	23 30 14
July	1	7 25 51	7 24 50	6 0 09	7 13 56	5 10 38	23 30 20
August	1	7 24 50	7 23 12	6 0 33	7 13 26	5 11 10	23 30 25
September	1	7 22 04	7 21 32	6 1 42	7 13 23	5 12 06	23 30 28
October	1	7 18 52	7 19 53	6 3 20	7 13 50	5 13 13	23 30 31
November	1	7 16 57	7 18 20	6 5 16	7 14 42	5 14 22	23 30 34
December	1	7 16 43	7 16 44	6 7 01	7 15 48	5 15 15	23 30 39
January	1	7 16 33	7 15 05	6 8 22	7 16 55	5 15 42	23 30 44

Combustion or Heliacal Setting of Planets

Saturn : From June 13 to July 16.
Jupiter : From Feb. 2 to Mar. 2.
Mars : From Aug. 16 to Nov. 27.
Venus : From Jan. 20 to Jan. 25, Oct. 14 to Dec. 5.
Mercury : From Dec. 21 (1973) to Jan. 24, Feb. 19 to Mar. 3, Apr. 17 to May 13, June 20 to July 10, Aug. 8 to Sept. 1, Oct. 15 to Oct. 30, Dec. 1 to Jan. 6 ('75)

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Feb.	15,	25	16	10	18	20	Mar.	9,	27	56	10	3	38
	June	17,	28	11	2	20	08	July	12,	7	19	2	10	56
	Oct.	13,	25	04	6	17	07	Nov.	3,	18	25	6	1	22
Venus	Jan.	3,	11	34	9	17	52	Feb.	13,	12	59	9	2	18
Mars	—		—			—		—		—			—	
Jupiter	July	7,	21	55	10	24	22	Nov.	3,	17	41	10	14	29
Saturn	—		—			—		Feb.	27,	26	45	2	4	17
	Oct.	31,	20	40	2	25	24	—		—			—	
Uranus	Feb.	1,	8	29	6	4	17	July	14,	5	52	6	0	09
Neptune	Mar.	12,	6	42	7	16	07	Aug.	19,	8	32	7	13	20
Pluto	Jan.	9,	5	47	5	13	20	June	14,	17	25	5	10	34

New-Moon and Full-Moon

New-Moon				Lunar months begin	
	d	h	m		
Jan.	23	16	32	Māgha	Sukla
Feb.	22	11	04	Phālguna	,,
Mar.	23	26	54	Caitra	,,
Apr.	22	15	47	Vaiśakha	,,
May	21	26	04	Jyaiṣṭha	,,
June	20	10	26	Āṣāḍha	,,
July	19	17	37	Śravaṇa	,,
Aug.	17	24	32	Bhādra (*Mala*)	,,
Sept.	16	8	15	Bhādra (*Suddha*)	,,
Oct.	15	17	55	Āśvina	,,
Nov.	14	6	23	Kārtika	,,
Dec.	13	21	55	Mārga	,,

Full-Moon				Hindi months begin	
	d	h	m		
Jan.	8	18	06	Māgha	Vadi
Feb.	6	28	54	Phālguna	,,
Mar.	8	15	33	Caitra	,,
Apr.	6	26	30	Vaiśakha	,,
May	6	14	25	Jyaiṣṭha	,,
June	4	27	40	Āṣaḍha	,,
July	4	18	10	Śravaṇa	,,
Aug.	3	9	27	Bhādra	,,
Sept.	1	24	55	Bhādra (*Adhika*)	,,
Oct.	1	16	08	Āśvina	,,
Oct.	31	6	48	Kārtika	,,
Nov.	29	20	40	Agrahā	,,
Dec.	29	9	21	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	7	04	Karkaṭa	on	July	16	15	46
Kumbha	on	Feb.	12	20	02	Siṁha	on	Aug.	16	24	09
Mina	on	Mar.	14	16	54	Kanyā	on	Sept.	16	24	04
Meṣa	on	Apr.	13	25	23	Tulā	on	Oct.	17	12	00
Vṛṣa	on	May	14	22	16	Vṛścika	on	Nov.	16	11	49
Mithuna	on	June	14	28	53	Dhanus	on	Dec.	15	26	29

1975 A.D. Longitude of Moon CONDENSED

Śaka era 1896-97, Saṁvat 2031-32 (Apr. 12, Nov. 4), B. S. 1381-82 (Apr. 15),
Kollam era 1150-51 (Aug. 17), 49 Rākṣasa (Apr. 12, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (ব ☽ ট) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec. 29	13 9	2 11 11	2 25 55	3 10 47	3 25 41	4 10 27	4 24 59	5 9 13
Jan. 5	20 9	5 23 07	6 6 41	6 19 57	7 2 56	7 15 41	7 28 14	8 10 37
12	27 9	8 22 51	9 4 57	9 16 58	9 28 53	10 10 44	10 22 35	11 4 28
19	5 10	11 16 27	11 28 36	0 10 59	0 23 42	1 6 50	1 20 25	2 4 30
26	12 10	2 19 02	3 3 58	3 19 10	4 4 26	4 19 37	5 4 31	5 19 02
Feb. 2	19 10	6 3 06	6 16 44	6 29 56	7 12 47	7 25 20	8 7 39	8 19 49
9	26 10	9 1 51	9 13 49	9 25 43	10 7 56	10 19 28	11 1 21	11 13 16
16	3 11	11 25 17	0 7 26	0 19 47	1 2 26	1 15 25	1 28 50	2 12 44
23	10 11	2 27 08	3 11 58	3 27 08	4 12 30	4 27 51	5 12 59	5 27 45
Mar. 2	17 11	6 12 03	6 25 51	7 9 10	7 22 04	8 4 36	8 16 52	8 28 56
9	24 11	9 10 52	9 22 45	10 4 36	10 16 28	10 28 22	11 10 20	11 22 22
16	2 12	0 4 31	0 16 48	0 29 16	1 11 57	1 24 57	2 8 17	2 22 01
23	9 12	3 6 11	3 20 44	4 5 38	4 20 46	5 5 57	5 21 01	6 5 48
30	16 12	6 20 11	7 4 07	7 17 34	8 0 35	8 13 13	8 25 31	9 7 37
Apr. 6	23 12	9 19 33	10 1 25	10 13 16	10 25 09	11 7 07	11 19 12	0 1 25
13	30 12	0 13 46	0 26 18	1 9 02	1 21 57	2 5 08	2 18 34	3 2 17
20	6 1	3 16 19	4 0 37	4 15 11	4 29 54	5 14 41	5 29 24	6 13 55
27	13 1	6 28 10	7 12 02	7 25 30	8 8 34	8 21 16	9 3 39	9 15 48
May 4	20 1	9 27 47	10 9 40	10 21 52	11 3 28	11 15 30	11 27 42	0 10 06
11	27 1	0 22 42	1 5 33	1 18 37	2 1 56	2 15 27	2 29 11	3 13 06
18	3 2	3 27 10	4 11 23	4 25 41	5 10 01	5 24 21	6 8 36	6 22 41
25	10 2	7 6 34	7 20 10	8 3 28	8 16 28	8 29 08	9 11 32	9 23 43
June 1	17 2	10 5 43	10 17 38	10 29 31	11 11 28	11 23 32	0 5 48	0 18 20
8	24 2	1 1 09	1 14 17	1 27 44	2 11 28	2 25 26	3 9 35	3 23 51
15	31 2	4 8 10	4 22 27	5 6 40	5 20 47	6 4 45	6 18 34	7 2 13
22	7 3	7 15 40	7 28 54	8 11 55	8 24 41	9 7 14	9 19 34	10 1 42
29	14 3	10 13 41	10 25 35	11 7 27	11 19 23	0 1 27	0 13 44	0 26 18
July 6	21 3	1 9 13	1 22 32	2 6 16	2 20 21	3 4 46	3 19 23	4 4 05
13	28 3	4 18 04	5 3 16	5 17 35	6 1 38	6 15 26	6 28 57	7 12 15
20	3 4	7 25 20	8 8 12	8 20 54	9 3 25	9 15 46	9 27 57	10 10 00
27	10 4	10 21 56	11 3 47	11 15 38	11 27 32	0 9 34	0 21 48	1 4 20
Aug. 3	17 4	1 17 15	2 0 37	2 14 27	2 28 44	3 13 25	3 28 23	4 13 28
10	24 4	4 28 30	5 13 21	5 27 53	6 12 03	6 25 50	7 9 15	7 22 22
17	31 4	8 5 12	8 17 49	9 0 15	9 12 31	9 24 40	10 6 43	10 18 40
24	7 5	11 0 32	11 12 23	11 24 13	0 6 07	0 18 07	1 0 20	1 12 49
31	14 5	1 25 40	2 8 58	2 22 44	3 7 00	3 21 44	4 6 48	4 22 04
Sept. 7	21 5	5 7 21	5 22 27	6 7 14	6 21 36	7 5 31	7 19 00	8 2 06
14	28 5	8 14 51	8 27 20	9 9 36	9 21 43	10 3 44	10 15 59	10 27 32
21	4 6	11 9 23	11 21 15	0 3 08	0 15 06	0 27 11	1 9 27	1 21 58
28	11 6	2 4 47	2 18 00	3 1 38	3 15 44	4 0 16	4 15 11	5 0 21
Oct. 5	18 6	5 15 36	6 0 46	6 15 40	7 0 12	7 14 18	7 27 55	8 11 07
12	25 6	8 23 55	9 6 24	9 18 37	10 0 40	10 12 36	10 24 28	11 6 19
19	1 7	11 18 11	0 0 07	0 12 08	0 24 16	1 6 33	1 19 01	2 1 41
26	8 7	2 14 37	2 27 51	3 11 25	3 25 20	4 9 37	4 24 12	5 9 01
Nov. 2	15 7	5 23 57	6 8 53	6 23 40	7 8 10	7 22 19	8 6 03	8 19 22
9	22 7	9 2 16	9 14 49	9 27 05	10 9 08	10 21 02	11 2 53	11 14 44
16	29 7	11 26 39	0 8 41	0 20 52	1 3 14	1 15 48	1 28 35	2 11 36
23	6 8	2 24 50	3 8 17	3 21 58	4 5 51	4 19 56	5 4 12	5 18 37
30	13 8	6 3 05	6 17 34	7 1 59	7 16 13	8 0 11	8 13 51	8 27 10
Dec. 7	20 8	9 10 07	9 22 43	10 5 02	10 17 06	10 29 01	11 10 52	11 22 43
14	27 8	0 4 39	0 16 45	0 29 04	1 11 39	1 24 31	2 7 41	2 21 08
21	5 9	3 4 49	3 18 41	4 2 41	4 16 47	5 0 54	5 15 03	5 29 10
28	12 9	6 13 14	6 27 15	7 11 10	7 24 58	8 8 35	8 21 58	9 5 06
Jan. 4	19 9	9 17 57	10 0 31	10 12 48	10 24 53	11 6 48	11 18 38	0 0 27

Ayanamsa on 1st Jan. : 23° 30′ 44″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	19	8	2R	22	22	10	19	48	7	21	27	8	16	25	8	29	52	8	23s	32	8	25	10
3	21	8	2	22	12	10	20	03	7	22	53	8	18	28	9	2	23	8	26	48	8	28	26
5	23	8	2	22	02	10	20	29	7	24	19	8	20	30	9	4	53	9	0	04	9	1r	42
7	25	8	2	21☍	52	10	20	51	7	25	46	8	22	32	9	7	24	9	3	21	9	4	59
9	27	8	2	21	42	10	21	12	7	27	12	8	24	35	9	9	54	9	6	38	9	8	16
11	29	8	2	21	32	10	21	34	7	28	39	8	26	37	9	12	24	9	9	53	9	11	31
13	1	9	2	21	22	10	21	57	8	0	06	8	28	39	9	14	55	9	13	07	9	14	43
15	3	9	2	21	13	10	22	20	8	1	33	9	0	41	9	17	25	9	16	17	9	17	50
17	5	9	2	21	03	10	22	43	8	3	00	9	2	44	9	19	55	9	19	21	9	20	50
19	6	9	2	20	53	10	23	07	8	4	27	9	4	46	9	22	26	9	22	01	9	23	39
21	8	9	2	20	44	10	23	31	8	5	55	9	6	48	9	24	56	9	24	58	9	26	13
23	10	9	2	20	35	10	23	56	8	7	22	9	8	50	9	27	26	9	27	22	9	28	26
25	12	9	2	20	26	10	24	20	8	8	50	9	10	52	9	29	56	9	29	22	10	0	11
27	15	9	2	20	17	10	24	46	8	10	18	9	12	54	10	2	26	10	0	52	10	1	23
29	17	9	2	20	08	10	25	11	8	11	46	9	14	56	10	4	55	10	1	44	10R	1	55
31	19	9	2	20	00	10	25	37	8	13	14	9	16	58	10	7	25	10	1	54	10	1	42
Feb. 2	22	9	2	19	52	10	26	02	8	14	43	9	19	00	10	9	55	10	1s	19	10	0	45
4	24	9	2	19	44	10	26	29	8	16	11	9	21	01	10	12	24	10	0	00	9	29	09
6	26	9	2	19	36	10	26	55	8	17	40	9	23	03	10	14	54	9	28	08	9	27	02
8	28	9	2	19	29	10	27	22	8	19	09	9	25	05	10	17	23	9	25	53	9	24	41
10	29	9	2	19	22	10	27	49	8	20	38	9	27	06	10	19	52	9	23	30	9	22	20
12	1	10	2	19	16	10	28	16	8	22	07	9	29	08	10	22	21	9	21	15	9	20r	14
14	3	10	2	19	10	10	28	43	8	23	36	10	1	09	10	24	50	9	19	20	9	18	32
16	5	10	2	19	04	10	29	11	8	25	05	10	3	10	10	27	19	9	17	52	9	17	20
18	7	10	2	18	58	10	29	39	8	26	36	10	5	11	10	29	48	9	16	55	9	16	38
20	9	10	2	18	53	11	0	06	8	28	04	10	7	12	11	2	16	9D	16	29	9	16	27
22	11	10	2	18	49	11	0	34	8	29	34	10	9	13	11	4	44	9	16	32	9	16	43
24	13	10	2	18	44	11	1	03	9	1	04	10	11	14	11	7	13	9	17	00	9	17	22
26	15	10	2	18	41	11	1	31	9	2	34	10	13	15	11	9	41	9	17	50	9	18	23
28	18	10	2	18	37	11	1	59	9	4	04	10	15	15	11	12	08	9	19	00	9	19	42
Mar. 2	20	10	2	18	34	11	2	28	9	5	34	10	17	16	11	14	36	9	20	27	9	21	16
4	22	10	2	18	32	11	2	57	9	7	04	10	19	16	11	17	04	9	22	03	9	23	03
6	24	10	2	18	30	11	3	25	9	8	34	10	21	16	11	19	31	9	24	02	9	25	02
8	26	10	2	18	28	11	3	54	9	10	05	10	23	16	11	21	58	9	26	06	9	27	12
10	28	10	2	18	27	11	4s	23	9	11	35	10	25	17	11	24	25	9	28	20	9	29	30
12	30	10	2	18	26	11	4	52	9	13	06	10	27	16	11	26	52	10	0	42	10	1	56
14	1	11	2D	18	26	11	5	21	9	14	36	10	29	16	11	29	18	10	3	12	10	4	30
16	3	11	2	18	26	11	5	50	9	16	07	11	1	16	0	1	44	10	5	49	10	7	10
18	5	11	2	18	26	11	6	19	9	17	38	11	3	15	0	4	10	10	8	33	10	9	57
20	7	11	2	18	27	11	6	48	9	19	09	11	5	15	0	6	36	10	11	23	10	12	50
22	9	11	2	18	29	11	7☌	17	9	20	40	11	7	14	0	9	02	10	14	18	10	15	48
24	11	11	2	18	31	11	7	46	9	22	11	11	9	13	0	11	27	10	17	19	10	18	52
26	14	11	2	18	33	11	8	15	9	23	42	11	11	12	0	13	52	10	20	26	10	22	01
28	16	11	2	18	36	11	8	44	9	25	13	11	13	11	0	16	16	10	23	38	10	25	16
30	18	11	2	18	39	11	9	13	9	26	44	11	15	09	0	18	41	10	26	55	10	28s	36
Apr. 1	21	11	2	18	43	11	9	42	9	28	16	11	17	08	0	21	05	11	0	18	11	2	02
3	23	11	2	18	47	11	10	11	9	29	47	11	19	06	0	23	29	11	3	47	11	5	33
5	24	11	2	18	52	11	10	40	10	1	18	11	21	04	0	25	52	11	7	21	11	9	10
7	26	11	2	18	57	11	11	09	10	2	50	11	23	03	0	28	15	11	11	01	11	12	53
9	28	11	2	19	02	11	11r	37	10	4	21	11	25	01	1	0	38	11	14	47	11	16	42
11	30	11	2	19	08	11	12	06	10	5	52	11	26	58	1	3	01	11	18	38	11	20	36
13	2	12	2	19	14	11	12	34	10	7	24	11	28	56	1	5	23	11	22	36	11	24	36
15	4	12	2	19	20	11	13	03	10	8	55	0	0	54	1	7	45	11	26	38	11	28	41
17	6	12	2	19	27	11	13	31	10	10	27	0	2	51	1	10	06	0	0	46	0	2	51

Ayanamsa on 1st Jan. : 23° 30′ 44″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	6 12	2 19 27	11 13 31	10 10 27	0 2 51	1 10 06	0 0s46	0 2⊙51
19	8 12	2 19 35	11 13 59	10 11 58	0 4 49	1 12 27	0 4 57	0 7 04
21	10 12	2 19 42	11 14 27	10 13 29	0 6 46	1 14 48	0 9 12	0 11 20
23	12 12	2 19 50	11 14 55	10 15 01	0 8 43	1 17 08	0 13 28	0 15 35
25	15 12	2 19 59	11 15 23	10 16 32	0 10 40	1 19 28	0 17 42	0 19 49
27	17 12	2 20 07	11 15 50	10 18 03	0 12 37	1 21 47	0 21r54	0 23 58
29	19 12	2 20 16	11 16 18	10 19 34	0 14 33	1 24 06	0 26 00	0 28 00
May 1	21 12	2 20 26	11 16 45	10 21 06	0 16 30	1 26 24	0 29 58	1 1 53
3	23 12	2 20 36	11 17 12	10 22 37	0 18 26	1 28 42	1 3 46	1 5 36
5	25 12	2 20 46	11 17 38	10 24 08	0 20 23	2 0 59	1 7 22	1 9 05
7	26 12	2 20 56	11 18 05	10 25 39	0 22 19	2 3 16	1 10 45	1 12 21
9	28 12	2 21 06	11 18 31	10 27 10	0 24 15	2 5 32	1 13 53	1 15 22
11	30 12	2 21 17	11 18 57	10 28 41	0 26 11	2 7 47	1 16 46	1 18 07
13	2 1	2 21 29	11 19 23	11 0 12	0 28 07	2 10 02	1 19 24	1 20 37
15	4 1	2 21 40	11 19 49	11 1 42	1 0 03	2 12 17	1 21 46	1 22 50
17	6 1	2 21 52	11 20 14	11 3 13	1 1 58	2 14 31	1 23 51	1 24 47
19	9 1	2 22 04	11 20 39	11 4 43	1 3 54	2 16 43	1 25 38	1 26 26
21	11 1	2 22 16	11 21 03	11 6 14	1 5 50	2 18 56	1 27 09	1 27 47
23	13 1	2 22 28	11 21 28	11 7 44	1 7 45	2 21 07	1 28 21	1 28 50
25	15 1	2 22 41	11 21 52	11 9 14	1 9 40	2 23 18	1 29 14	1 29 33
27	17 1	2 22 54	11 22 16	11 10 44	1 11 35	2 25 27	1 29 48	1 29 58
29	19 1	2 23 07	11 22 39	11 12 18	1 13 31	2 27 36	2R0 04	2 0 05
31	21 1	2 23 20	11 23 02	11 13 43	1 15 26	2 29 44	2 0 01	1 29 53
June 2	23 1	2 23 34	11 23 25	11 15 12	1 17 21	3 1 51	1 29s40	1 29 24
4	25 1	2 23 48	11 23 47	11 16 41	1 19 16	3 3 56	1 29 04	1 28 41
6	27 1	2 24 01	11 24 09	11 18 10	1 21 11	3 6 01	1 28 14	1 27 46
8	29 1	2 24 15	11 24 30	11 19 39	1 23 05	3 8 04	1 27 15	1 26 43
10	1 2	2 24 30	11 24 52	11 21 08	1 25 00	3 10 06	1 26⊙09	1 25 36
12	3 2	2 24 44	11 25 12	11 22 36	1 26 55	3 12 07	1 25 02	1 24 30
14	5 2	2 24 58	11 25 32	11 24 04	1 28 50	3 14 07	1 23 58	1 23 29
16	7 2	2 25 13	11 25 52	11 25 32	2 0 44	3 16 04	1 23 02	1 22 38
18	10 2	2 25 28	11 26 11	11 27 00	2 2 39	3 18 01	1 22 16	1 21 59
20	12 2	2 25 43	11 26 30	11 28 27	2 4 33	3 19 55	1 21 45	1 21 36
22	14 2	2 25 57	11 26 49	11 29 54	2 6 28	3 21 48	1D21r31	1 21 30
24	16 2	2 26 12	11 27 07	0 1 31	2 8 22	3 23 38	1 21 34	1 21 43
26	18 2	2 26 28	11 27 24	0 2 47	2 10 17	3 25 27	1 21 56	1 22 14
28	20 2	2 26s43	11 27 41	0 4 13	2 12 11	3 27 13	1 22 37	1 23 05
30	21 2	2 26 58	11 27 57	0 5 39	2 14 06	3 28 56	1 23 38	1 24 15
July 2	23 2	2 27 13	11 28 13	0 7 05	2 16 00	4 0 38	1 24 57	1 25 43
4	25 2	2 27 29	11 28 28	0 8 30	2 17 54	4 2 16	1 26 34	1 27 29
6	27 2	2 27 44	11 28 42	0 9 55	2 19 49	4 3 51	1 28 29	1 29 33
8	29 2	2 28 00	11 28 56	0 11 19	2 21 43	4 5 24	2 0 41	2 1 54
10	1 3	2 28 15	11 29 10	0 12 43	2 23 38	4 6 52	2 3 10	2 4 31
12	4 3	2 28 31	11 29 22	0 14 07	2 25 32	4 8 17	2 5 56	2 7 25
14	6 3	2 28⊙46	11 29 34	0 15 30	2 27 27	4 9 38	2 8 58	2 10 34
16	8 3	2 29 02	11 29 46	0 16 53	2 29 21	4 10 55	2 12 14	2 13 58
18	10 3	2 29 18	11 29 57	0 18 15	3 1 15	4 12 06	2 15 45	2 17 35
20	12 3	2 29 33	0 0 07	0 19 37	3 3 10	4 13 13	2 19 28	2 21 24
22	14 3	2 29 49	0 0 16	0 20 59	3 5 04	4 14 14	2 23 23	2 25s23
24	16 3	3 0 04	0 0 25	0 22 20	3 6 59	4 15 09	2 27 25	2 29 29
26	18 3	3 0 20	0 0 33	0 23 40	3 8 54	4 15 58	3 1 34	3 3 40
28	20 3	3 0 35	0 0 40	0 25 00	3 10 48	4 16 40	3 5 46	3 7 53
30	22 3	3 0r50	0 0 46	0 26 19	3 12 43	4 17 14	3 9 59	3 12 06
Aug. 1	24 3	3 1 06	0 0 52	0 27 38	3 14 38	4 17 41	3 14⊙11	3 16 16

EPHEMERIS Longitudes of Planets 1975 A.D.

Ayanamsa on 1st Jan. : 23° 30′ 44″

Date	Tithi & Month		श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			Nirayana Longitudes at 5-30 A.M. I.S.T.						
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	24	3	3 1 06	0 0 52	0 27 38	3 14 38	4 17 41	3 14☌11	3 16s16
3	26	3	3 1 21	0 0 57	0 28 57	3 16 33	4 18 00	3 18 20	3 20 23
5	28	3	3 1 36	0 1 01	1 0 15	3 18 27	4R18 10	3 22 25	3 24 26
7	30	3	3 1 51	0 1 05	1 1 32	3 20 22	4 18 11	3 26 25	3 28 23
9	2	4	3 2 06	0 1 08	1 2 48	3 22 17	4 18 03	4 0 20	4 2 15
11	5	4	3 2 21	0 1 10	1 4 01	3 24 12	4 17 45	4 4 08	4 6 00
13	7	4	3 2 36	0R1 11	1 5 19	3 26 08	4 17 18	4 7 50	4 9r39
15	9	4	3 2 51	0 1 11	1 6 34	3 28 03	4 16 41	4 11 27	4 13 13
17	11	4	3 3 05	0 1 10	1 7 48	3 29 58	4 15s55	4 14 58	4 16 41
19	13	4	3 3 20	0 1 09	1 9 01	4 1 53	4 15 01	4 18 22	4 20 02
21	15	4	3 3 34	0 1 07	1 10 13	4 3 49	4 14 00	4 21 41	4 23 19
23	17	4	3 3 48	0 1 04	1 11 24	4 5 44	4 12 53	4 24 55	4 26 29
25	18	4	3 4 02	0 1 01	1 12 35	4 7 40	4 11 42	4 28 02	4 29 34
27	20	4	3 4 16	0 0 56	1 13 45	4 9 36	4 10☌28	5 1 05	5 2 34
29	22	4	3 4 29	0 0 51	1 14 54	4 11 32	4 9 14	5 4 01	5 5 27
31	24	4	3 4 43	0 0 45	1 16 02	4 13 28	4 8r00	5 6 52	5 8 15
Sept. 2	26	4	3 4 56	0 0 38	1 17 09	4 15 24	4 6 51	5 9 37	5 10 57
4	28	4	3 5 09	0 0 31	1 18 15	4 17 20	4 5 45	5 12 16	5 13 33
6	1	5	3 5 22	0 0 23	1 19 20	4 19 16	4 4 47	5 14 49	5 16 02
8	3	5	3 5 34	0 0 14	1 20 24	4 21 13	4 3 55	5 17 14	5 18 24
10	5	5	3 5 46	0 0 04	1 21 27	4 23 03	4 3 12	5 19 32	5 20 38
12	7	5	3 5 58	11 29 54	1 22 29	4 25 06	4 2 39	5 21 42	5 22 43
14	9	5	3 6 10	11 29 43	1 23 29	4 27 03	4 2 14	5 23 42	5 24 38
16	11	5	3 6 22	11 29 31	1 24 29	4 29 00	4 2 00	5 25 32	5 26 22
18	13	5	3 6 33	11 29 19	1 25 27	5 0 57	4D1 54	5 27 09	5 27 52
20	15	5	3 6 44	11 29 06	1 26 23	5 2 54	4 1 59	5 28 32	5 29 08
22	17	5	3 6 55	11 28 53	1 27 19	5 4 51	4 2 12	5 29 39	6 0 05
24	19	5	3 7 05	11 28 40	1 28 12	5 6 48	4 2 35	6 0 26	6 0 41
26	21	5	3 7 15	11 28 25	1 29 05	5 8 46	4 3 05	6R0 51	6 0 54
28	23	5	3 7 25	11 28 11	1 29 55	5 10 44	4 3 44	6 0s51	6 0 40
30	25	5	3 7 35	11 27 56	2 0 45	5 12 41	4 4 30	6 0 22	5 29 57
Oct. 2	27	5	3 7 44	11 27 41	2 1 32	5 14 39	4 5 22	5 29 24	5 28 43
4	29	5	3 7 53	11 27 25	2 2 17	5 16 38	4 6 22	5 27 55	5 27 00
6	2	6	3 8 01	11 27 09	2 3 01	5 18 36	4 7 27	5 26 00	5 24 54
8	4	6	3 8 09	11 26 53	2 3 43	5 20 34	4 8 38	5 23 45	5 22☌35
10	6	6	3 8 17	11 26 37	2 4 22	5 22 33	4 9 53	5 21 24	5 20 15
12	8	6	3 8 24	11 26 21	2 5 00	5 24 31	4 11 14	5 19 11	5 18 12
14	10	6	3 8 31	11 26☍05	2 5 35	5 26 30	4 12 39	5 17 21	5 16r39
16	12	6	3 8 38	11 25 49	2 6 08	5 28 29	4 14 08	5 16 07	5 15 45
18	14	6	3 8 44	11 25 33	2 6 38	6 0 28	4 15 41	5D15 35	5 15 36
20	15	6	3 8 50	11 25 17	2 7 06	6 2 27	4 17 18	5 15 47	5 16 10
22	17	6	3 8 56	11 25 01	2 7 32	6 4 27	4 18 57	5 16 41	5 17 22
24	19	6	3 9 01	11 24 45	2 7 54	6 6 26	4 20 40	5 18 12	5 19 09
26	21	6	3 9 05	11 24 30	2 8 14	6 8 25	4 22 26	5 20 12	5 21 21
28	23	6	3 9 09	11 24 15	2 8 31	6 10 25	4 24 15	5 22 35	5 23 54
30	25	6	3 9 13	11 24 00	2 8 45	6 12 25	4 26 06	5 25 16	5 26 41
Nov. 1	28	6	3 9 16	11 23 46	2 8 56	6 14 25	4 27 59	5 28 09	5 29 39
3	30	6	3 9 19	11 23 32	2 9 03	6 16 25	4 29 55	6 1 10	6 2 44
5	2	7	3 9 22	11 23 18	2R 9 08	6 18 25	5 1 53	6 4 18	6 5 58
7	4	7	3 9 24	11 23 05	2 9 08	6 20 26	5 3 52	6 7 29	6 9 05
9	6	7	3 9 26	11 22 53	2 9 06	6 22 26	5 5 53	6 10 42	6 12 18
11	8	7	3 9 26	11 22 41	2 9 00	6 24 27	5 7 56	6 13s55	6 15 32
13	10	7	3R 9 27	11 22 30	2 8 50	6 26 27	5 10 01	6 17 09	6 18 46
15	12	7	3 9 27	11 22 20	2 8 37	6 28 28	5 12 06	6 20 23	6 22 00

1975 A.D. Longitudes of Planets CONDENSED

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	12 7	3R 9 27	11R 22 20	2R 8 37	6 28 28	5 12 06	6 20s 23	6 22 00
17	14 7	3 9 27	11 22 10	2 8 21	7 0 29	5 14 14	6 23 36	6 25 13
19	16 7	3 9 26	11 22 01	2 8 01	7 2 30	5 16 22	6 26 49	6 28 25
21	18 7	3 9 25	11 21 53	2 7 37	7 4 31	5 18 32	7 0 1	7 1 36
23	20 7	3 9 23	11 21 45	2 7 11	7 6 32	5 20 43	7 3 11	7 4 47
25	22 7	3 9 21	11 21 38	2 6 41	7 8 34	5 22 55	7 6 22	7 7 56
27	24 7	3 9 19	11 21 32	2 6 08	7 10 35	5 25 08	7 9 31	7 11 06
29	26 7	3 9 16	11 21 27	2 5 32	7 12 37	5 27 22	7 12 40	7 14 15
Dec. 1	28 7	3 9 13	11 21 23	2 4 54	7 14 38	5 29 37	7 15 49	7 17 23
3	30 7	3 9 09	11 21 19	2 4 13	7 16 40	6 1 53	7 18 57	7 20 31
5	3 8	3 9 04	11 21 17	2 3 31	7 18 42	6 4 10	7 22 05	7 23 39
7	5 8	3 9 00	11 21 15	2 2 46	7 20 43	6 6 27	7 25 13	7 26 47
9	7 8	3 8 55	11 21 14	2 2 01	7 22 45	6 8 45	7 28 21	7 29 55
11	8 8	3 8 49	11D 21 13	2 1 14	7 24 47	6 11 04	8 1 30	8 3 04
13	10 8	3 8 44	11 21 14	2 0 27	7 26 49	6 13 23	8 4 38	8 6 12
15	12 8	3 8 37	11 21 15	1 29 40	7 28 51	6 15 43	8 7 46	8 9 21
17	14 8	3 8 31	11 21 18	1 28 54	8 0 53	6 18 03	8 10 55	8 12 29
19	16 8	3 8 24	11 21 21	1 28 08	8 2 55	6 20 24	8 14r 04	8 15 38
21	18 8	3 8 17	11 21 25	1 27 23	8 4 57	6 22 46	8 17 12	8 18 46
23	20 8	3 8 09	11 21 32	1 26 40	8 7 00	6 25 08	8 20 20	8 21 54
25	22 8	3 8 01	11 21 35	1 25 58	8 9 02	6 27 30	8 23 27	8 24 59
27	25 8	3 7 53	11 21 41	1 25 19	8 11 04	6 29 53	8 26 31	8 28 03
29	27 8	3 7 45	11 21 48	1 24 42	8 13 06	7 2 16	8 29 33	9 1 02
31	29 8	3 7 36	11 21 56	1 24 07	8 15 09	7 4 40	9 2 30	9 3 56
Jan. 2	1 9	3 7 28	11 22 05	1 23 35	8 17 11	7 7 04	9 5 19	9 6 41

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	7 16 33	7 15 05	6 8 22	7 16 55	5R 15 42	23 30 44
February 1	7 14 41	7 13 27	6R 8 57	7 17 49	5 15 37	23 30 49
March 1	7 11 35	7 11 57	6 8 43	7R 18 14	5 15 07	23 30 52
April 1	7 8 35	7 10 19	6 7 46	7 18 12	5 14 18	23 30 55
May 1	7 7 28	7 8 44	6 6 10	7 17 43	5 13 31	23 30 58
June 1	7 7 30	7 7 05	6 5 23	7 16 55	5 13 02	23 31 03
July 1	7 7 02	7 5 30	6 4 52	7 16 09	5D 13 01	23 31 08
August 1	7 4 56	7 3 51	6D 5 06	7 15 38	5 13 30	23 31 12
September 1	7 1 38	7 2 12	6 6 09	7D 15 32	5 14 25	23 31 16
October 1	6 29 08	7 0 37	6 7 43	7 15 57	5 15 33	23 31 19
November 1	6 28 20	6 28 58	6 9 38	7 16 47	5 16 42	23 31 22
December 1	6 28 23	6 27 23	6 11 25	7 17 52	5 17 38	23 31 26
January 1	6 27 24	6 25 45	6 12 51	7 19 00	5 18 07	23 31 31

Combustion or Heliacal Setting of Planets

Saturn : From June 28 to July 30.
Jupiter : From Mar. 10 to Apr. 9.
Mars : — —
Venus : From Aug. 17 to Aug. 31.
Mercury : Upto Jan. 6 then from Feb. 2 to Feb. 13, Mar. 31 to Apr. 27, June 2 to June 22, July 23 to Aug. 14 Sept. 28 to Oct. 15 Nov. 11 to Dec. 19.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Jan. 30,	16	16	10	1	55	Feb. 20,	25	09	9	16	27
	May 29,	21	35	2	0	05	June 22,	20	46	1	21	30
	Sept. 26,	29	03	6	0	54	Oct. 18,	15	47	5	15	35
Venus	Aug. 6,	10	48	4	18	12	Sept. 17,	27	13	4	1	54
Mars	Nov. 6,	17	35	2	9	08	Jan. 20, (1976)			1	21	12
Jupiter	Aug. 14,	24	57	0	1	11	Dec. 10,	18	04	11	21	13
Saturn	Oct.('74)31,	20	40	2	25	24	Mar. 14,	13	57	2	18	26
	Nov. 14,	24	46	3	9	27	Mar. 27, (1976)			3	2	31
Uranus	Feb. 6,	7	12	6	8	58	July 7,	9	45	6	4	50
Neptune	Mar. 14,	16	09	7	18	17	Aug. 21,	20	03	7	15	30
Pluto	Jan. 11,	22	58	5	15	45	June 17,	8	22	5	12	58

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	12	15	50	Pauṣa	Sukla	Jan.	27	20	39	Māgha	Vadi
Feb.	11	10	47	Māgha	"	Feb.	26	6	45	Phālguna	"
Mar.	12	29	17	Phālguna	"	Mar.	27	16	06	Caitra	"
Apr.	11	22	09	Caitra	"	Apr.	25	25	25	Vaiśakha	"
May	11	12	35	Vaiśākha	"	May	25	11	21	Jyaiṣṭha	"
June	9	24	19	Jyaiṣṭha	"	June	23	22	24	Āṣāḍha	"
July	9	9	40	Āṣāḍha	"	July	23	10	58	Śrāvaṇa	"
Aug.	7	17	27	Śravana	"	Aug.	21	25	18	Bhādra	"
Sept.	5	24	49	Bhādra	"	Sept.	20	17	20	Āśvina	"
Oct.	5	8	53	Āśvina	"	Oct.	20	10	36	Kārtika	"
Nov.	3	18	35	Kārtika	"	Nov.	18	27	58	Agrahā	"
Dec.	3	6	20	Mārga	"	Dec.	18	20	10	Pauṣa	"

Sun's entry into Nirayana Ṣigns

			d	h	m				d	h	m
Makara	on	Jan.	14	13	14	Karkaṭa	on	July	16	21	51
Kumbha	on	Feb.	12	26	13	Siṁha	on	Aug.	17	6	17
Mina	on	Mar.	14	23	04	Kanyā	on	Sept.	17	6	14
Meṣa	on	Apr.	14	7	32	Tulā	on	Oct.	17	19	10
Vṛṣa	on	May	14	28	22	Vṛścika	on	Nov.	16	17	56
Mithuna	on	June	15	10	57	Dhanuṣ	on	Dec.	16	8	33

1976 A.D. Longitude of Moon CONDENSED

Saka era 1897-98, Samvat 2032-33 (Mar. 31, Oct. 24), B.S. 1382-83 (Apr. 14), Kollam era 1151-52 (Aug. 16), 50 Anala (Nala) (Mar. 31, Apr. 13).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T. Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec. 28	12 9	6 13 14	6 27 15	7 11 10	7 24 58	8 8 35	8 21 58	9 5 06
Jan. 4	19 9	9 17 57	10 0 31	10 12 48	10 24 53	11 6 48	11 18 38	0 0 27
11	26 9	0 12 22	0 24 28	1 6 50	1 19 31	2 2 35	2 16 03	2 29 53
18	4 10	3 14 01	3 28 23	4 12 52	4 27 21	5 11 45	5 26 01	6 10 06
25	11 10	6 23 59	7 7 42	7 21 14	8 4 36	8 17 47	9 0 48	9 13 38
Feb. 1	18 10	9 26 14	10 8 38	10 20 50	11 2 51	11 14 44	11 26 32	0 8 20
8	25 10	0 20 13	1 2 16	1 14 35	1 27 15	2 10 21	2 23 55	3 7 56
15	2 11	3 22 22	4 7 06	4 22 01	5 6 57	5 21 46	6 6 20	6 20 37
22	9 11	7 4 35	7 18 13	8 1 35	8 14 41	8 27 34	9 10 15	9 22 46
29	16 11	10 5 06	10 17 17	10 29 19	11 11 15	11 23 04	0 4 51	0 16 39
Mar. 7	23 11	0 28 31	1 10 32	1 22 49	2 5 25	2 18 26	3 1 55	3 15 53
14	30 11	4 0 21	4 15 11	5 0 18	5 15 31	6 0 40	6 15 35	7 0 10
21	7 12	7 14 22	7 28 10	8 11 34	8 24 37	9 7 21	9 19 51	10 2 08
28	14 12	10 14 15	10 26 15	11 8 09	11 19 59	0 1 46	0 13 34	0 25 25
Apr. 4	21 12	1 7 21	1 19 26	2 1 44	2 14 19	2 27 16	3 10 38	3 24 27
11	28 12	4 8 43	4 23 25	5 8 25	5 23 37	6 8 51	6 23 57	7 8 46
18	5 1	7 23 12	8 7 12	8 20 46	9 3 54	9 16 39	9 29 06	10 11 18
25	12 1	10 23 18	11 5 11	11 17 00	11 28 47	0 10 36	0 22 28	1 4 26
May 2	19 1	1 16 31	1 28 46	2 11 14	2 23 56	3 6 56	3 20 16	4 3 57
9	26 1	4 18 0	5 2 25	5 17 08	6 2 04	6 17 06	7 2 05	7 16 54
16	2 2	8 1 24	8 15 32	8 29 13	9 12 28	9 25 18	10 7 47	10 19 59
23	9 2	11 1 58	11 13 48	11 25 36	0 7 24	0 19 16	1 1 15	1 13 23
30	16 2	1 25 42	2 8 14	2 20 58	3 3 57	3 17 09	4 0 36	4 14 17
June 6	23 2	4 28 14	5 12 24	5 26 48	6 11 21	6 26 01	7 10 40	7 25 14
13	30 2	8 9 35	8 23 38	9 7 18	9 20 35	10 3 27	10 15 58	10 28 11
20	6 3	11 10 11	11 22 02	0 3 50	0 15 40	0 27 36	1 9 43	1 22 02
27	13 3	2 4 37	2 17 28	3 0 34	3 13 55	3 27 28	4 11 12	4 25 04
July 4	20 3	5 9 03	5 23 09	6 7 19	6 21 33	7 5 49	7 20 04	8 4 14
11	27 3	8 18 14	9 2 00	9 15 29	9 28 38	10 11 27	10 23 56	11 6 08
18	2 4	11 18 07	11 29 59	0 11 47	0 23 38	1 5 38	1 17 49	2 0 18
25	9 4	2 13 05	2 26 14	3 9 41	3 23 26	4 7 25	4 21 32	5 5 45
Aug. 1	16 4	5 19 58	6 4 09	6 18 17	7 2 21	7 16 20	8 0 12	8 13 57
8	23 4	8 27 32	9 10 56	9 24 06	10 7 00	10 19 37	11 1 59	11 14 07
15	30 4	11 26 04	0 7 54	0 19 42	1 1 33	1 13 32	1 25 45	2 8 17
22	5 5	2 21 11	3 4 29	3 18 12	4 2 16	4 16 38	5 1 10	5 15 47
29	12 5	6 0 22	6 14 50	6 29 07	7 13 12	7 27 04	8 10 43	8 24 09
Sept. 5	19 5	9 7 23	9 20 24	10 3 12	10 15 47	10 28 10	11 10 21	11 22 22
12	26 5	0 4 15	0 16 03	0 27 50	1 9 40	1 21 38	2 3 50	2 16 20
19	2 6	2 29 13	3 12 31	3 26 17	4 10 29	4 25 04	5 9 54	5 24 53
26	9 6	6 9 51	6 24 41	7 9 16	7 23 33	8 7 29	8 21 06	9 4 23
Oct. 3	16 6	9 17 22	10 0 06	10 12 36	10 24 54	11 7 03	11 19 03	0 0 57
10	23 6	0 12 46	0 24 33	1 6 21	1 18 13	2 0 12	2 12 23	2 24 51
17	30 6	3 7 39	3 20 51	4 4 29	4 18 35	5 3 07	5 18 00	6 3 07
24	7 7	6 18 20	7 3 27	7 18 22	8 2 56	8 17 06	9 0 49	9 14 08
31	14 7	9 27 03	10 9 39	10 21 58	11 4 05	11 16 03	11 27 55	0 9 43
Nov. 7	21 7	0 21 31	1 3 20	1 15 12	1 27 10	2 9 16	2 21 33	3 4 02
14	28 7	3 16 49	3 29 54	4 13 23	4 27 15	5 11 32	5 26 11	6 11 09
21	5 8	6 26 18	7 11 29	7 26 32	8 11 19	8 25 42	9 9 37	9 23 03
28	12 8	10 6 03	10 18 38	11 0 55	11 12 57	11 24 49	0 6 37	0 18 24
Dec. 5	19 8	1 0 13	1 12 07	1 24 08	2 6 17	2 18 36	3 1 06	3 13 47
12	26 8	3 26 41	4 9 49	4 23 13	5 6 55	5 20 55	6 5 15	6 19 51
19	4 9	7 4 40	7 19 36	8 4 29	8 19 13	9 3 37	9 17 38	10 1 11
26	11 9	10 14 16	10 26 56	11 9 15	11 21 17	0 3 09	0 14 57	0 26 44
Jan. 2	18 9	1 8 35	1 20 35	2 2 46	2 15 09	2 27 45	3 10 35	3 23 36

Ayanamsa on 1st Jan. : 23° 31′ 31″

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.																					
			श ♄ नि			बृ ♃ ह			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	30	8	3	R7	32	11	R22	01	1	R23	51	8	16	10	7	5	52	9	3	56	9	5	19
3	2	9	3	7	23	11	22	10	1	23	21	8	18	12	7	8	16	9	6	41	9	7	59
5	4	9	3	7	14	11	22	19	1	22	53	8	20	15	7	10	40	9	9	13	9	10	24
7	6	9	3	7	05	11	22	30	1	22	29	8	22	17	7	13	05	9	11	30	9	12	30
9	8	9	3	6	55	11	22	41	1	22	08	8	24	19	7	15	30	9	13	24	9	14	10
11	9	9	3	6	46	11	22	53	1	21	51	8	26	22	7	17	55	9	14	49	9	15	18
13	11	9	3	6	36	11	23	06	1	21	37	8	28	24	7	20	20	9	15	37	9	R15	46
15	13	9	3	6	26	11	23	19	1	21	26	9	0	26	7	22	46	9	15	43	9	15	29
17	15	9	3	6	16	11	23	33	1	21	18	9	2	28	7	25	11	9	15	03	9	14s	26
19	17	9	3	6	07	11	23	47	1	21	14	9	4	30	7	27	37	9	13	38	9	12	40
21	20	9	3	5	57	11	24	03	1	D21	12	9	6	32	8	0	03	9	11	34	9	10	22
23	22	9	3	5	47	11	24	19	1	21	14	9	8	35	8	2	30	9	9⊙	06	9	7	49
25	24	9	3	5	37	11	24	35	1	21	19	9	10	37	8	4	56	9	6	33	9	5	20
27	26	9	3	5	27	11	24	52	1	21	26	9	12	39	8	7	23	9	4	12	9	3r	10
29	28	9	3	5	17	11	25	09	1	21	36	9	14	41	8	9	50	9	2	16	9	1	29
31	30	9	3	5	08	11	25	28	1	21	50	9	16	42	8	12	17	9	0	52	9	0	23
Feb. 2	2	10	3	4	58	11	25	46	1	22	05	9	18	44	8	14	44	9	0	03	8	D29	52
4	4	10	3	4	49	11	26	05	1	22	24	9	20	46	8	17	11	8	29	48	8	29	52
6	6	10	3	4	40	11	26	25	1	22	41	9	22	48	8	19	38	9	0	03	9	0	21
8	8	10	3	4	31	11	26	45	1	23	07	9	24	49	8	22	05	9	0	45	9	1	14
10	9	10	3	4	22	11	27	06	1	23	32	9	26	51	8	24	33	9	1	48	9	2	37
12	11	10	3	4	13	11	27	27	1	24	00	9	28	52	8	27	00	9	3	11	9	3	58
14	14	10	3	4	05	11	27	48	1	24	29	10	0	54	8	29	28	9	4	49	9	5	43
16	16	10	3	3	57	11	28	10	1	25	00	10	2	55	9	1	55	9	6	40	9	7	40
18	18	10	3	3	49	11	28	33	1	25	33	10	4	56	9	4	23	9	8	43	9	9	48
20	20	10	3	3	41	11	28	55	1	26	08	10	6	57	9	6	50	9	10	55	9	12	05
22	23	10	3	3	34	11	29	18	1	26	45	10	8	58	9	9	18	9	13	16	9	14	29
24	25	10	3	3	27	11	29	42	1	27	23	10	10	59	9	11	46	9	15	44	9	17	01
26	27	10	3	3	21	0	0	06	1	28	02	10	12	59	9	14	14	9	18	19	9	19	39
28	29	10	3	3	15	0	0	30	1	28	43	10	15	00	9	16	42	9	21	00	9	22	22
Mar. 1	1	11	3	3	09	0	0	54	1	29	26	10	17	01	9	19	10	9	23	46	9	25	11
3	2	11	3	3	03	0	1	19	2	0	10	10	19	01	9	21	37	9	26	38	9	28	05
5	4	11	3	2	58	0	1	44	2	0	55	10	21	01	9	24	05	9	29	34	10	1	04
7	6	11	3	2	54	0	2	10	2	1	41	10	23	01	9	26	33	10	2	35	10	4	07
9	8	11	3	2	49	0	2	35	2	2	28	10	25	01	9	29	01	10	5	41	10	7	16
11	10	11	3	2	45	0	3	01	2	3	17	10	27	01	10	1	29	10	8	51	10	10	28
13	12	11	3	2	42	0	3	27	2	4	06	10	29	01	10	3	57	10	12s	07	10	13	46
15	14	11	3	2	39	0	3	54	2	4	57	11	1	01	10	6	25	10	15	26	10	17	08
17	17	11	3	2	36	0	4	20	2	5	48	11	3	00	10	8	53	10	18	51	10	20	35
19	19	11	3	2	34	0	4	47	2	6	40	11	4	59	10	11	21	10	22	20	10	24	07
21	21	11	3	2	32	0	5	14	2	7	33	11	6	59	10	13	49	10	25	55	10	27	44
23	23	11	3	2	31	0	5	41	2	8	27	11	8	58	10	16	17	10	29	34	11	1	26
25	25	11	3	2	30	0	6	09	2	9	22	11	10	57	10	18	45	11	3	19	11	5	13
27	27	11	3	D2	30	0	6	36	2	10	17	11	12	55	10	21	13	11	7	09	11	9	06
29	29	11	3	2	30	0	7	04	2	11	13	11	14	54	10	23	41	11	11	04	11	13	03
31	1	12	3	2	30	0	7	32	2	12	10	11	16	53	10	26	09	11	15	03	11	17⊙	04
Apr. 2	3	12	3	2	31	0	8	00	2	13	08	11	18	51	10	28	37	11	19	07	11	21	10
4	4	12	2	2	33	0	8	28	2	14	06	11	20	49	11	1	05	11	23	14	11	25	18
6	6	12	3	2	35	0	8	56	2	15	04	11	22	48	11	3	33	11	27	23	11	29	27
8	8	12	3	2	37	0	9	24	2	16	04	11	24	46	11	6	01	0	1	32	0	3	36
10	10	12	3	2	39	0	9	52	2	17	04	11	26	43	11	8	29	0	5r	40	0	7	42
12	13	12	3	2	43	0	10	21	2	18	04	11	28	41	11	10	56	0	9	43	0	11	43
14	15	12	3	2	46	0	10	49	2	19	05	0	0	39	11	13	24	0	13	39	0	15	34
16	17	12	3	2	50	0	11	18	2	20	06	0	2	36	11	15	52	0	17	26	0	19	14

Ayanamsa on 1st Jan. : 23° 31′ 31″

Date	Tithi & Month		श	♄	नि	बृ	♃	हु	मं	♂	ग	र	☉	वि	शु	♀	क्र	बु	☿	ध	☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.16	17	12	3	2	50	0	11s	18	2	20	06	0	2	36	11	15	52	0	17	26	0	19	14
18	20	12	3	2	54	0	11	47	2	21	03	0	4	33	11	18	20	0	21	00	0	22	43
20	22	12	3	2	59	0	12	15	2	22	10	0	6	31	11	20	47	0	24	19	0	25	53
22	24	12	3	3	04	0	12	44	2	23	13	0	8	28	11	23	15	0	27	23	0	28	48
24	26	12	3	3	10	0	13	13	2	24	16	0	10	25	11	25	43	1	0	08	1	1	24
26	27	12	3	3	16	0	13	41	2	25	19	0	12	21	11	28	11	1	2	35	1	3	41
28	29	12	3	3	22	0	14◎	10	2	26	23	0	14	18	0	0	38	1	4	43	1	5	39
30	1	1	3	3	29	0	14	39	2	27	27	0	16	15	0	3	06	1	6	30	1	7	16
May 2	3	1	3	3	36	0	15	08	2	28	32	0	18	11	0	5	33	1	7	56	1	8	32
4	5	1	3	3	44	0	15	36	2	29	37	0	20	08	0	8	01	1	9	2	1	9	26
6	7	1	3	3	51	0	16	05	3	0	42	0	22	04	0	10	29	1	9	46	1	10	00
8	9	1	3	4	00	0	16	33	3	1	47	0	24	00	0	12	56	1	10	09	1R	10	12
10	11	1	3	4	08	0	17	02	3	2	53	0	25	56	0	15	24	1	10	11	1	10	04
12	13	1	3	4	17	0	17	30	3	3	59	0	27	52	0	17	51	1	9s	54	1	9	38
14	16	1	3	4	26	0	17r	59	3	5	06	0	29	48	0	20	19	1	9	19	1	8	56
16	18	1	3	4	36	0	18	27	3	6	13	1	1	43	0	22s	46	1	8	29	1	8	00
18	20	1	3	4	46	0	18	55	3	7	20	1	3	39	0	25	13	1	7	29	1	6	56
20	22	1	3	4	56	0	19	23	3	8	27	1	5	34	0	27	41	1	6◎	22	1	5	47
22	24	1	3	5	06	0	19	51	3	9	34	1	7	30	1	0	08	1	5	12	1	4	39
24	26	1	3	5	17	0	20	19	3	10	42	1	9	25	1	2	36	1	4	06	1	3	36
26	28	1	3	5	28	0	20	47	3	11	50	1	11	21	1	5	03	1	3	07	1	2	42
28	29	1	3	5	39	0	21	15	3	12	59	1	13	16	1	7	30	1	2	19	1	2	00
30	1	2	3	5	51	0	21	42	3	14	07	1	15	11	1	9	58	1	1	45	1	1	34
June 1	3	2	3	6	03	0	22	10	3	15	16	1	17	06	1	12	25	1	1r	28	1D	1	25
3	5	2	3	6	15	0	22	37	3	16	25	1	19	01	1	14	53	1	1	27	1	1	34
5	7	2	3	6	27	0	23	01	3	17	34	1	20	56	1	17	20	1	1	45	1	2	00
7	10	2	3	6	39	0	23	30	3	18	44	1	22	51	1	19	47	1	2	20	1	2	44
9	12	2	3	6	52	0	23	57	3	19	53	1	24	45	1	22	15	1	3	13	1	3	46
11	14	2	3	7	05	0	24	23	3	21	03	1	26	40	1	24	42	1	4	28	1	5	04
13	16	2	3	7	18	0	24	50	3	22	13	1	28	35	1	27	09	1	5	49	1	6	38
15	19	2	3	7	31	0	25	15	3	23	23	2	0	29	1	29	37	1	7	31	1	8	28
17	21	2	3	7	45	0	25	41	3	24	34	2	2	24	2	2	01	1	9	28	1	10	32
19	22	2	3	7	59	0	26	07	3	25	44	2	4	18	2	4◎	32	1	11	40	1	12	52
21	24	2	3	8	12	0	26	32	3	26	55	2	6	13	2	6	59	1	14	06	1	15	25
23	26	2	3	8	26	0	26	57	3	28	06	2	8	07	2	9	26	1	16	46	1	18	11
25	28	2	3	8	41	0	27	21	3	29	18	2	10	02	2	11	54	1	19	40	1	21	12
27	30	2	3	8	55	0	27	46	4	0	29	2	11	56	2	14	21	1	22	47	1	24	25
29	2	3	3	9	09	0	28	10	4	1	41	2	13	51	2	16	49	1	26	06	1	27	41
July 1	4	3	3	9	24	0	28	34	4	2	52	2	15	45	2	19	16	1	29	38	2	1	29
3	6	3	3	9	39	0	28	57	4	4	04	2	17	40	2	21	44	2	3	22	2	5	18
5	8	3	3	9	53	0	29	20	4	5	17	2	19	34	2	24	11	2	7	16	2	9s	17
7	10	3	3	10	08	0	29	43	4	6	29	2	21	28	2	26	39	2	11	19	2	13	24
9	13	3	3	10	23	1	0	05	4	7	41	2	23	23	2	29	07	2	15	30	2	17	37
11	15	3	3	10s	38	1	0	27	4	8	54	2	25	17	3	1r	34	2	19	45	2	21	54
13	17	3	3	10	54	1	0	49	4	10	07	2	27	12	3	4	02	2	24	03	2	26	13
15	19	3	3	11	09	1	1	10	4	11	20	2	29	06	3	6	29	2	28◎	22	3	0	30
17	21	3	3	11	24	1	1	31	4	12	33	3	1	00	3	8	57	3	2	38	3	4	45
19	23	3	3	11	39	1	1	51	4	13	47	3	2	55	3	11	24	3	6	51	3	8	56
21	25	3	3	11	55	1	2	11	4	15	00	3	4	49	3	13	52	3	10	59	3	13	01
23	26	3	3	12	10	1	2	31	4	16	14	3	6	44	3	16	20	3	15	02	3	17	00
25	28	3	3	12	26	1	2	50	4	17	28	3	8	39	3	18	47	3	18	58	3	20r	53
27	30	3	3	12	41	1	3	08	4	18	42	3	10	33	3	21	15	3	22	47	3	24	39
29	3	4	3	12◎	57	1	3	27	4	19	56	3	12	28	3	23	43	3	26	30	3	28	19
31	5	4	3	13	12	1	3	44	4	21	11	3	14	23	3	26	11	4	0	06	4	1	52

Ayanamsa on 1st Jan. : 23° 31′ 31″

Date	*Tithi & Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ न	गु ♃ बृ	मं ♂ ग	र ☉ व	शु ♀ क	बु ☿ ध	☿ 2nd dav
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
July 31	5 4	3 13s12	1 3 44	4 21 11	3 14 23	3 26 11	4 0 06	4 1 52
Aug. 2	7 4	3 13 28	1 4 01	4 22 26	3 16 18	3 28 38	4 3 36	4 5 18
4	9 4	3 13 43	1 4 18	4 23 40	3 18 13	4 1 06	4 6 58	4 8 37
6	11 4	3 13 58	1 4 34	4 24 55	3 20 07	4 3 34	4 10 15	4 11 50
8	13 4	3 14 14	1 4 49	4 26 11	3 22 02	4 6 02	4 13 24	4 14 57
10	16 4	3 14 29	1 5 04	4 27 26	3 23 57	4 8 29	4 16 28	4 17 57
12	17 4	3 14r45	1 5 18	4 28 41	3 25 53	4 10 57	4 19 24	4 20 50
14	19 4	3 15 00	1 5 32	4 29 57	3 27 48	4 13 25	4 22 14	4 23 37
16	21 4	3 15 15	1 5 45	5 1 13	3 29 43	4 15 52	4 24 58	4 26 16
18	23 4	3 15 30	1 5 57	5 2 29	4 1 38	4 18 20	4 27 33	4 28 49
20	25 4	3 15 45	1 6 09	5 3 45	4 3 34	4 20 48	5 0 02	5 1 14
22	27 4	3 16 00	1 6 20	5 5 02	4 5 29	4 23 15	5 2 22	5 3 29
24	29 4	3 16 15	1 6 31	5 6 18	4 7 25	4 25 43	5 4 34	5 5 36
26	1 5	3 16 30	1 6 41	5 7 35	4 9 21	4 28 11	5 6 36	5 7 33
28	3 5	3 16 44	1 6 50	5 8 52	4 11 17	5 0 39	5 8 27	5 9 18
30	6 5	3 16 59	1 6 58	5 10 10	4 13 13	5 3 06	5 10 06	5 10 51
Sept. 1	8 5	3 17 13	1 7 06	5 11 27	4 15 09	5 5 33	5 11 32	5 12 09
3	10 5	3 17 27	1 7 13	5 12 45	4 17 05	5 8 01	5 12 42	5 13 11
5	12 5	3 17 42	1 7 19	5 14 02	4 19 01	5 10 28	5 13 35	5 13 54
7	14 5	3 17 55	1 7 24	5 15 20	4 20 58	5 12 56	5 14 08	5R14 17
9	16 5	3 18 09	1 7 29	5 16 38	4 22 54	5 15 23	5 14s19	5 14 16
11	18 5	3 18 23	1 7 33	5 17 57	4 24 51	5 17 51	5 14 06	5 13 49
13	20 5	3 18 36	1 7 36	5 19 15	4 26 48	5 20 18	5 13 26	5 12 56
15	21 5	3 18 49	1 7 38	5 20 34	4 28 44	5 22 45	5 12 19	5 11 36
17	23 5	3 19 02	1 7 40	5 21 53	5 0 41	5 25 13	5 10 47	5 9 53
19	25 5	3 19 15	1R 7 40	5 23 12	5 2 39	5 27 40	5 8 54	5 7 52
21	27 5	3 19 28	1 7 40	5 24s31	5 4 36	6 0 07	5 6 48	5 5⊙43
23	30 5	3 19 40	1 7 39	5 25 51	5 6 33	6 2 34	5 4 39	5 3 37
25	2 6	3 19 52	1 7 38	5 27 10	5 8 31	6 5 01	5 2 40	5 1 49
27	4 6	3 20 04	1 7 35	5 28 30	5 10 29	6 7 28	5 1r04	5 0 28
29	6 6	3 20 15	1 7 32	5 29 50	5 12 26	6 9 55	5 0 01	4 29 44
Oct. 1	9 6	3 20 27	1 7 28	6 1 11	5 14 24	6 12 22	4D29 37	4 29 40
3	11 6	3 20 38	1 7 23	6 2 31	5 16 22	6 14 49	4 29 54	5 0 18
5	13 6	3 20 48	1 7 17	6 3 52	5 18 21	6 17 16	5 0 51	5 1 34
7	14 6	3 20 59	1 7 11	6 5 13	5 20 19	6 19 43	5 2 25	5 3 24
9	16 6	3 21 09	1 7 03	6 6 34	5 22 17	6 22 09	5 4 29	5 5 41
11	18 6	3 21 19	1 6 55	6 7 55	5 24 16	6 24 36	5 6 58	5 8 20
13	20 6	3 21 28	1 6 47	6 9 17	5 26 15	6 27 03	5 9 46	5 11 15
15	22 6	3 21 37	1 6 37	6 10 39	5 28 14	6 29 29	5 12 48	5 14 22
17	24 6	3 21 46	1 6 27	6 12 00	6 0 13	7 1 55	5 15 59	5 17 37
19	26 6	3 21 55	1 6 16	6 13 23	6 2 12	7 4 22	5 19 16	5 20 56
21	28 6	3 22 03	1 6 05	6 14 45	6 4 11	7 6 48	5 22 37	5 24 18
23	30 6	3 22 11	1 5 53	6 16 08	6 6 11	7 9 14	5 26s00	5 27 41
25	3 7	3 22 18	1 5 40	6 17 30	6 8 10	7 11 40	5 29 23	6 1 04
27	5 7	3 22 25	1 5 27	6 18 53	6 10 10	7 14 06	6 2 46	6 4 27
29	7 7	3 22 32	1 5 13	6 20 16	6 12 10	7 16 32	6 6 07	6 7 48
31	9 7	3 22 38	1 4 59	6 21 40	6 14 10	7 18 58	6 9 27	6 11 07
Nov. 2	11 7	3 22 44	1 4 45	6 23 03	6 16 10	7 21 24	6 12 46	6 14 25
4	13 7	3 22 49	1 4 30	6 24 27	6 18 10	7 23 50	6 16 03	6 17 41
6	15 7	3 22 54	1 4 14	6 25 51	6 20 10	7 26 15	6 19 18	6 20⊙55
8	16 7	3 22 59	1 3 59	6 27 15	6 22 11	7 28 40	6 22 32	6 24 08
10	18 7	3 23 03	1 3 43	6 28 40	6 24 11	8 1 06	6 25 44	6 27 20
12	20 7	3 23 06	1 3 27	7 0 05	6 26 12	8 3 31	6 28 55	7 0 30
14	22 7	3 23 10	1 3 11	7 1 29	6 28 12	8 5 56	7 2 05	7 3 39

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 14	22	7	3 23 10	1R 3 11	7 1s 29	6 28 12	8 5 56	7 2s 05	7 3 39
16	24	7	3 23 13	1 2 54	7 2 54	7 0 13	8 8 20	7 5 13	7 6 47
18	26	7	3 23 15	1 2 ☌ 38	7 4 20	7 2 14	8 10 45	7 8 21	7 9 54
20	29	7	3 23 17	1 2 22	7 5 45	7 4 16	8 13 09	7 11 27	7 13 00
22	1	8	3 23 19	1 2 05	7 7 11	7 6 17	8 15 34	7 14 33	7 16 06
24	3	8	3 23 20	1 1 49	7 8 ☌ 37	7 8 18	8 17 58	7 17 38	7 19 11
26	5	8	3R 23 20	1 1 33	7 10 03	7 10 20	8 20 21	7 20 43	7 22 15
28	7	8	3 23 20	1 1 17	7 11 29	7 12 21	8 22 45	7 23 47	7 25 18
30	9	8	3 23 20	1 1 02	7 12 56	7 14 23	8 25 08	7 26r 46	7 28 21
Dec. 2	11	8	3 23 19	1 0 46	7 14 22	7 16 24	8 27 32	7 29 52	8 1 23
4	13	8	3 23 18	1 0 31	7 15 49	7 18 26	8 29 54	8 2 53	8 4 23
6	15	8	3 23 17	1 0 17	7 17 16	7 20 28	9 2 17	8 5 50	8 7 22
8	17	8	3 23 15	1 0 03	7 18 44	7 22 29	9 4 38	8 8 50	8 10 18
10	19	8	3 23 12	0 29 49	7 20 11	7 24 31	9 7 01	8 11 46	8 13 12
12	21	8	3 23 09	0 29 36	7 21 39	7 26 33	9 9 22	8 14 37	8 16 01
14	23	8	3 23 06	0 29 23	7 23 07	7 28 35	9 11 43	8 17 23	8 18 44
16	25	8	3 23 02	0 29 11	7 24 35	8 0 37	9 14 03	8 20 02	8 21 18
18	27	8	3 22 58	0 29 00	7 26 03	8 2 40	9 16 23	8 22 31	8 23 41
20	29	8	3 22 53	0 28 49	7 27 32	8 4 42	9 18 43	8 24 47	8 25 48
22	2	9	3 22 48	0 28 39	7 29 00	8 6 44	9 21 02	8 26 45	8 27 35
24	4	9	3 22 43	0 28 30	8 0 29	8 8 46	9 23 21	8 28 18	8 28 54
26	6	9	3 22 37	0 28 21	8 1 58	8 10 49	9 25 39	8 29 21	8 29 39
28	8	9	3 22 31	0 28 13	8 3 27	8 12 51	9 27 56	8R 29 47	8 29 43
30	10	9	3 22 24	0 28 06	8 4 57	8 14 53	10 0 13	8 29 28	8 29 01
Jan. 1	11	9	3 22 17	0 28 00	8 6 26	8 16 56	10 2 29	8 28s 22	8 27 33

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	6 27 24	6 25 45	6 12 51	7 19 00	5R 18 07	23 31 3[illegible]
February	1	6 24 25	6 24 09	6R 13 34	7 19 55	5 18 06	23 31 37
March	1	6 21 10	6 22 34	6 13 27	7R 20 23	5 17 35	23 31 40
April	1	6 19 17	6 20 55	6 12 35	7 20 22	5 16 48	23 31 42
May	1	6 19 05	6 19 20	6 11 21	7 19 54	5 15 59	23 31 45
June	1	6 18 57	6 17 41	6 10 10	7 19 08	5 15 29	23 31 50
July	1	6 17 30	6 16 06	6D 9 33	7 18 21	5D 15 26	23 31 55
August	1	6 14 29	6 14 27	6 9 41	7 17 48	5 15 54	23 31 59
September	1	6 11 28	6 12 48	6 10 38	7D 17 42	5 16 48	23 32 03
October	1	6 10 05	6 11 13	6 12 08	7 18 04	5 17 55	23 32 05
November	1	6 10 02	6 9 35	6 14 01	7 18 54	5 19 06	23 32 08
December	1	6 9 40	6 7 59	6 15 51	7 19 58	5 20 03	23 32 12
January	1	6 7 25	6 6 21	6 17 21	7 21 07	5 20 35	23 32 17

Combustion or Heliacal Setting of Planets

Saturn :	From July 11 to Aug. 13.
Jupiter :	From Apr. 16 to May 14.
Mars :	From Sep. 21 to Jan. 27. (1977)
Venus :	From May 16 to July 12.
Mercury :	From Jan. 18 to 28, Mar. 13 to Apr. 10, May 12 to June 1, July 6 to 26, Sept. 9 to 27 and Oct. 23 to Nov. 30

Retrogression of Planets

Planet	Retrograde Date	h	m	Long s ° ′	Direct Date	h	m	Long. s ° ′
Mercury	Jan 14,	12	05	0 15 45	Feb. 3,	28	42	8 29 48
	May 9,	10	41	1 10 12	June 2,	6	47	1 1 25
	Sep. 8,	27	24	5 14 19	Oct. 1,	9	29	4 29 37
	Dec. 28,	9	52	8 29 47	Jan. 17, ('77)	13	42	8 13 34
Venus	—	—		—	—	—		—
Mars	('75) Nov. 6	17	35	2 9 08	Jan. 20,	27	01	1 21 12
Jupiter	Sept. 19,	24	11	1 7 40	('77) Jan. 15,	16	21	0 27 39
Saturn	('75) Nov. 14,	24	46	3 9 27	Mar. 27,	25	14	3 2 30
	Nov. 27,	24	12	3 23 20	('77) Apr. 11,	11	13	3 16 25
Uranus	Feb. 10,	27	35	6 13 37	July 11,	11	42	6 9 30
Neptune	Mar. 15,	27	02	7 20 27	Aug. 23,	7	34	7 17 40
Pluto	Jan. 14,	16	41	5 18 11	June 18,	25	40	5 15 24

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	10	20	10	Pauṣa	Sukla	Jan.	17	10	17	Māgha	Vadi
Jan.	31	11	50	Māgha	"	Feb.	15	22	13	Phālguna	"
Feb.	29	28	55	Phālguna	"	Mar.	16	8	23	Caitra	"
Mar.	30	22	38	Caitra	"	Apr.	14	17	19	Vaiśakha	"
Apr.	29	15	50	Vaiśākha	"	May	13	25	34	Jyaiṣṭha	"
May	29	7	17	Jyaiṣṭha	"	June	12	9	45	Āṣāḍha	"
June	27	20	20	Āṣāḍha	"	July	11	18	39	Śrāvaṇa	"
July	27	7	09	Śravana	"	Aug.	9	29	14	Bhādra	"
Aug.	25	16	31	Bhādra	"	Sept.	8	18	22	Āśvina	"
Sept.	23	25	25	Āśvina	"	Oct.	8	10	25	Kārtika	"
Oct.	23	10	40	Kārtika	"	Nov.	6	28	45	Agrahā	"
Nov.	21	20	41	Agrahā	"	Dec.	6	23	45	Pauṣa	"
Dec.	21	7	38	Pauṣa	"				—		

Sun's entry into Nirayana Signs

			d h m				d h m
Makara	on	Jan.	14 19 17	Karkaṭa	on	July	15 28 10
Kumbha	on	Feb.	13 8 16	Siṁha	on	Aug.	16 12 36
Mina	on	Mar.	13 29 19	Kanyā	on	Sept.	16 12 32
Meṣa	on	Apr.	13 13 42	Tulā	on	Oct.	16 24 27
Vṛṣa	on	May	14 10 36	Vṛścika	on	Nov.	15 24 11
Mithuna	on	June	14 17 15	Dhanus	on	Dec.	15 14 47

1977 A.D. Longitude of Moon CONDENSED

Saka era 1898-99, Saṁvat 2033-34 (Mar. 20, Nov. 12), B.S. 1383-84 (Apr. 14),
Kollam era 1152-53 (Aug. 17), 51 Pingala (Mar. 20, Apr. 14).

Nirayana Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.

Date	Beng. Date	Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 26	11 9	10 14 16	10 26 56	11 9 15	11 21 17	0 3 01	0 14 37	0 26 44
Jan. 2	18 9	1 8 35	1 20 35	2 2 46	2 15 09	2 27 45	3 10 35	3 23 36
9	25 9	4 6 48	4 20 11	5 3 44	5 17 27	6 1 21	6 15 26	6 29 42
16	2 10	7 14 06	7 28 35	8 13 05	8 27 28	9 11 37	9 25 29	10 8 57
23	9 10	10 22 02	11 4 44	11 17 05	11 29 10	0 11 04	0 22 52	1 4 41
30	16 10	1 16 34	1 28 38	2 10 56	2 23 30	3 6 21	3 19 30	4 2 55
Feb. 6	23 10	4 16 32	5 0 20	5 14 14	5 28 14	6 12 17	6 26 22	7 10 28
13	1 11	7 24 35	8 8 40	8 22 42	9 6 36	9 20 20	10 3 50	10 17 02
20	8 11	10 29 56	11 12 31	11 24 50	0 6 55	0 18 49	1 0 38	1 12 28
27	15 11	1 24 22	2 6 26	2 18 46	3 1 24	3 14 24	3 27 45	4 11 28
Mar. 6	22 11	4 25 28	5 9 42	5 24 04	6 8 30	6 22 54	7 7 14	7 21 26
13	29 11	8 5 30	8 19 22	9 3 04	9 16 34	9 29 51	10 12 55	10 25 45
20	6 12	11 8 21	11 20 43	0 2 54	0 14 54	0 26 47	1 8 36	1 20 25
27	13 12	2 2 19	2 14 23	2 26 41	3 9 17	3 22 16	4 5 39	4 19 28
Apr. 3	20 12	5 3 40	5 18 12	6 2 57	6 17 50	7 2 41	7 17 24	8 1 53
10	27 12	8 16 05	8 29 59	9 13 33	9 26 48	10 9 46	10 22 29	11 4 59
17	4 1	11 17 17	11 29 25	0 11 26	0 23 20	1 5 10	1 16 59	1 28 49
24	11 1	2 10 44	2 22 47	3 5 03	3 17 36	4 0 30	4 13 47	4 27 31
May 1	18 1	5 11 42	5 26 18	6 11 13	6 26 21	7 11 32	7 26 36	8 11 25
8	25 1	8 25 53	9 9 56	9 23 32	10 6 44	10 19 34	11 2 05	11 14 22
15	1 2	11 26 27	0 8 25	0 20 17	1 2 06	1 13 55	1 25 46	2 7 39
22	8 2	2 19 38	3 1 45	3 14 03	3 26 35	4 9 25	4 22 36	5 6 11
29	15 2	5 20 12	6 4 39	6 19 30	7 4 37	7 19 53	8 5 07	8 20 09
June 5	22 2	9 4 49	9 19 02	10 2 46	10 16 02	10 28 51	11 11 19	11 23 30
12	29 2	0 5 30	0 17 22	0 29 10	1 10 58	1 22 49	2 4 44	2 16 44
19	4 3	2 28 52	3 11 08	3 23 34	4 6 12	4 19 04	5 2 14	5 15 43
26	11 3	5 29 34	6 13 48	6 28 24	7 13 18	7 28 23	8 13 31	8 28 30
July 3	18 3	9 13 11	9 27 28	10 11 17	10 24 36	11 7 29	11 19 59	0 2 10
10	25 3	0 14 09	0 26 00	1 7 49	1 19 38	2 1 33	2 13 34	2 25 45
17	1 4	3 8 05	3 20 35	4 3 16	4 16 08	4 29 12	5 12 29	5 26 01
24	8 4	6 9 48	6 23 52	7 8 13	7 22 48	8 7 32	8 22 19	9 7 01
31	15 4	9 21 30	10 5 39	10 19 23	11 2 42	11 15 36	11 28 07	0 10 21
Aug. 7	22 4	0 22 22	1 4 14	1 16 04	1 27 57	2 9 56	2 22 04	3 4 24
14	29 4	3 16 58	3 29 45	4 12 45	4 25 58	5 9 22	5 22 57	6 6 42
21	4 5	6 20 36	7 4 40	7 18 51	8 3 10	8 17 32	9 1 53	9 16 08
28	11 5	10 0 13	10 14 02	10 27 32	11 10 42	11 23 31	0 6 01	0 18 14
Sept. 4	18 5	1 0 16	1 12 10	1 24 02	2 5 56	2 17 57	3 0 09	3 12 36
11	25 5	3 25 19	4 8 20	4 21 39	5 5 14	5 19 04	6 3 04	6 17 13
18	1 6	7 1 26	7 15 40	7 29 54	8 14 05	8 23 10	9 12 08	9 25 57
25	8 6	10 9 33	10 22 57	11 6 05	11 18 58	0 1 36	0 13 59	0 26 10
Oct. 2	15 6	1 8 10	1 20 04	2 1 56	2 13 49	2 25 49	3 8 01	3 20 27
9	22 6	4 3 13	4 16 21	4 29 51	5 13 44	5 27 56	6 12 24	6 27 01
16	29 6	7 11 40	7 26 17	8 10 45	8 25 00	9 9 00	9 22 44	10 6 12
23	6 7	10 19 26	11 2 24	11 15 10	11 27 44	0 10 06	0 22 19	1 4 23
30	13 7	1 16 21	1 28 13	2 10 04	2 21 57	3 3 55	3 16 03	3 28 25
Nov. 6	20 7	4 11 06	4 24 11	5 7 41	5 21 38	6 6 02	6 20 47	7 5 47
13	27 7	7 20 53	8 5 56	8 20 45	9 5 16	9 19 23	10 3 06	10 16 26
20	4 8	10 29 25	11 12 08	11 24 36	0 6 53	0 19 01	1 1 04	1 13 01
27	11 8	1 24 55	2 6 47	2 18 39	3 0 32	3 12 31	3 24 37	4 6 55
Dec. 4	18 8	4 19 30	5 2 26	5 15 48	5 29 37	6 13 56	6 28 42	7 13 49
11	25 8	7 29 08	8 14 28	8 29 37	9 14 26	9 28 47	10 12 40	10 26 03
18	2 9	11 9 01	11 21 38	0 3 58	0 16 05	0 28 05	1 9 59	1 21 52
25	9 9	2 3 44	2 15 37	2 27 32	3 9 31	3 21 35	4 3 47	4 16 08
Jan. 1	16 9	4 28 42	5 11 34	5 24 47	6 8 25	6 22 30	7 7 02	7 21 57

Ayanamsa on 1st Jan. : 23° 32′ 17″

Date	Tithi & Month	श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	11 9	3 R22 17	0 R28 00	8 6s 26	8 16 56	10 2 29	8 R28 22s	8 27 33
3	13 9	3 22 10	0 27 54	8 7 56	8 18 58	10 4 44	8 26 32	8 25 24
5	15 9	3 22 03	0 27 49	8 9 26	8 21 00	10 6 58	8 24 09	8 22 49
7	17 9	3 21 55	0 27 46	8 10 56	8 23 02	10 9 12	8 21 28	8 20 09
9	19 9	3 21 47	0 27 42	8 12 26	8 25 05	10 11 24	8 18 53	8 17 42
11	21 9	3 21 39	0 27 40	8 13 57	8 27 07	10 13 36	8 16r39	8 15 44
13	23 9	3 21 30	0 27 39	8 15 27	8 29 09	10 15 46	8 14 59	8 14 23
15	25 9	3 21 21	0 D27 38	8 16 58	9 1 11	10 17 55	8 13 58	8 13 41
17	28 9	3 21 12	0 27 38	8 18 29	9 3 14	10 20 04	8 D13 34	8 13 35
19	30 9	3 21 03	0 27 39	8 20 00	9 5 16	10 22 10	8 13 45	8 14 01
21	2 10	3 20 54	0 27 41	8 21 31	9 7 18	10 24 16	8 14 25	8 14 54
23	4 10	3 20 44	0 27 44	8 23 03	9 9 20	10 26 20	8 15 29	8 16 10
25	6 10	3 20 35	0 27 47	8 24 34	9 11 22	10 28 22	8 16 54	8 17 43
27	8 10	3 20 25	0 27 52	8 26r06	9 13 24	11 0 23	8 18 36	8 19 32
29	10 10	3 20 16	0 27 57	8 27 38	9 15 26	11 2 22	8 20 31	8 21 33
31	11 10	3 20 06	0 28 03	8 29 10	9 17 28	11 4 19	8 22 37	8 23 44
Feb. 2	13 10	3 19 56	0 28 10	9 0 42	9 19 30	11 6 14	8 24 53	8 26 04
4	15 10	3 19 46	0 28 17	9 2 14	9 21 31	11 8 06	8 27 17	8 28 31
6	17 10	3 19 36	0 28 25	9 3 46	9 23 33	11 9 56	8 29 47	9 1 05
8	20 10	3 19 27	0 28 34	9 5 18	9 25 34	11 11 44	9 2 24	9 3 44
10	22 10	3 19 17	0 28 44	9 6 51	9 27 36	11 13 28	9 5 05	9 6 28
12	24 10	3 19 07	0 28 54	9 8 23	9 29 37	11 15 10	9 7 52	9 9 17
14	26 10	3 18 58	0 29 05	9 9 56	10 1 39	11 16 48	9 10 43	9 12 10
16	28 10	3 18 48	0 29 17	9 11 29	10 3 40	11 18 23	9 13 38	9 15 07
18	30 10	3 18 39	0 29 29	9 13 02	10 5 41	11 19 54	9 16 37	9 18 08
20	2 11	3 18 30	0 29 42	9 14 35	10 7 42	11 21 22	9 19 40	9 21 13
22	4 11	3 18 21	0 29 56	9 16 08	10 9 43	11 22 44	9 22 46	9 24 21
24	6 11	3 18 13	1 0 10	9 17 41	10 11 44	11 24 02	9 25s57	9 27 34
26	8 11	3 18 04	1 0 25	9 19 14	10 13 44	11 25 18	9 29 12	10 0 50
28	10 11	3 17 56	1 0 41	9 20 48	10 15 45	11 26 22	10 2 30	10 4 11
Mar. 2	12 11	3 17 48	1 0 57	9 22 21	10 17 45	11 27 23	10 5 53	10 7 36
4	14 11	3 17 40	1 1 14	9 23 54	10 19 46	11 28 18	10 9 19	10 11 04
6	16 11	3 17 33	1 1 31	9 25 28	10 21 46	11 29 05	10 12 51	10 14 38
8	18 11	3 17 26	1 1 49	9 27 01	10 23 46	11 29 45	10 16 26	10 18 15
10	20 11	3 17 19	1 2 07	9 28 35	10 25 46	0 0 17	10 20 06	10 21 57
12	22 11	3 17 13	1 2 25	10 0 08	10 27 46	0 0 41	10 23 50	10 25 44
14	25 11	3 17 07	1 2 45	10 1 42	10 29 45	0 0 56	10 27 39	10 29 35
16	27 11	3 17 01	1 3 04	10 3 16	11 1 45	0 R1 01	11 1 32	11 3 29
18	29 11	3 16 56	1 3 24	10 4 49	11 3 44	0 0 57	11 5 28	11 7 28
20	1 12	3 16 51	1 3 45	10 6 23	11 5 44	0 0 43	11 9 28	11 11 28
22	3 12	3 16 47	1 4 06	10 7 57	11 7 43	0 0 19	11 13 29	11 15 30
24	4 12	3 16 43	1 4 27	10 9 30	11 9 42	11 29 45	11 17 31	11 19 31
26	6 12	3 16 39	1 4 49	10 11 04	11 11 41	11 29 01	11 21r31	11 23 29
28	8 12	3 16 36	1 5 11	10 12 38	11 13 40	11 28 09	11 25 26	11 27 21
30	10 12	3 16 33	1 5 34	10 14 11	11 15 38	11 27 09	11 29 14	0 1 05
Apr. 1	12 12	3 16 30	1 5 57	10 15 45	11 17 37	11 26 03	0 2 52	0 4 36
3	14 12	3 16 28	1 6 20	10 17 18	11 19 35	11 24 51	0 6 16	0 7 52
5	16 12	3 16 27	1 6 43	10 18 52	11 21 33	11 23 36	0 9 24	0 10r50
7	19 12	3 16 26	1 7 07	10 20 25	11 23 31	11 22 20	0 12 12	0 13 28
9	21 12	3 16 25	1 7 31	10 21 59	11 25 29	11 21 06	0 14 39	0 15 44
11	23 12	3 16 25	1 7 56	10 23 32	11 27 27	11 19 54	0 16 43	0 17 37
13	25 12	3 D16 25	1 8 20	10 25 06	11 29 24	11 18 46	0 18 24	0 19 04
15	27 12	3 16 25	1 8 45	10 26 39	0 1 22	11 17 45	0 19 39	0 20 07
17	29 12	3 16 26	1 9 11	10 28 12	0 3 19	11 16 52	0 20 29	0 20 45

Ayanamsa on 1st Jan. : 23° 32′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	29	12	3 16 26	1 9 11	10 28 12	0 3 19	11 *R*16 52	0 20 29	0 20 45
19	1	1	3 16 28	1 9 36	10 29 45	0 5 17	11 16 07	0 20 55	0R20 58
21	3	1	3 16 30	1 10 02	11 1 18	0 7 14	11 15 32	0 20 56	0 20 48
23	5	1	3 16 32	1 10 27	11 2 51	0 9 11	11 15 06	0 20s34	0 20 16
25	6	1	3 16 35	1 10 54	11 4 24	0 11 08	11 14 49	0 19 53	0 19 26
27	8	1	3 16 38	1 11 20	11 5 57	0 13 05	11D14 42	0 18 55	0 18 21
29	10	1	3 16 42	1 11 46	11 7 30	0 15 01	11 14 45	0 17 46	0 17☌07
May 1	13	1	3 16 46	1 12 13	11 9 02	0 16 58	11 14 57	0 16 29	0 15 50
3	15	1	3 16 50	1 12 40	11 10 35	0 18 54	11 15 18	0 15 11	0 14 34
5	17	1	3 16 55	1 13 06	11 12 07	0 20 51	11 15 47	0 13 58	0 13 25
7	20	1	3 17 00	1 13 33	11 13 39	0 22 47	11 16 24	0 12 54	0 12 27
9	22	1	3 17 06	1 14 01	11 15 11	0 24 43	11 17 08	0 12 04	0 11 44
11	24	1	3 17 12	1 14 28	11 16 43	0 26 39	11 17 59	0 11 29	0 11r18
13	26	1	3 17 18	1 14 55	11 18 15	0 28 35	11 18 56	0D11 12	0 11 10
15	28	1	3 17 25	1 15 23	11 19 46	1 0 30	11 19 59	0 11 13	0 11 21
17	29	1	3 17 32	1 15 50	11 21 18	1 2 26	11 21 08	0 11 33	0 11 49
19	1	2	3 17 40	1 16 18	11 22 49	1 4 22	11 22 22	0 12 10	0 12 36
21	3	2	3 17 46	1 16s46	11 24 20	1 6 17	11 23 40	0 13 05	0 13 39
23	5	2	3 17 55	1 17 13	11 25 51	1 8 13	11 25 02	0 14 16	0 14 58
25	7	2	3 18 04	1 17 41	11 27 22	1 10 08	11 26 28	0 15 43	0 16 31
27	9	2	3 18 13	1 18 09	11 28 52	1 12 03	11 27 58	0 17 24	0 18 19
29	11	2	3 18 22	1 18 37	0 0 23	1 13 58	11 29 32	0 19 18	0 20 21
31	13	2	3 18 32	1 19 05	0 1 53	1 15 53	0 1 08	0 21 26	0 22 35
June 2	16	2	3 18 41	1 19 33	0 3 23	1 17 48	0 2 47	0 23 46	0 25 01
4	18	2	3 18 51	1 20☌01	0 4 52	1 19 43	0 4 29	0 26 18	0 27 38
6	20	2	3 19 02	1 20 29	0 6 22	1 21 38	0 6 14	0 29 01	1 0 27
8	22	2	3 19 12	1 20 56	0 7 51	1 23 33	0 8 01	1 1 56	1 3 28
10	24	2	3 19 23	1 21 24	0 9 20	1 25 28	0 9 50	1 5 02	1 6 39
12	26	2	3 19 35	1 21 52	0 10 49	1 27 22	0 11 41	1 8 19	1 10 01
14	28	2	3 19 46	1 22 20	0 12 18	1 29 17	0 13 33	1 11 47	1 13 34
16	30	2	3 19 58	1 22 48	0 13 46	2 1 12	0 15 28	1 15 25	1 17 18
18	2	3	3 20 10	1 23r15	0 15 14	2 3 06	0 17 24	1 19 13	1 21s11
20	4	3	3 20 22	1 23 43	0 16 42	2 5 01	0 19 22	1 23 11	1 25 13
22	5	3	3 20 34	1 24 11	0 18 10	2 6 55	0 21 21	1 27 17	1 29 23
24	7	3	3 20 47	1 24 38	0 19 37	2 8 50	0 23 21	2 1 30	2 3 39
26	10	3	3 21 00	1 25 05	0 21 04	2 10 44	0 25 23	2 5 49	2 7 59
28	12	3	3 21 13	1 25 33	0 22 31	2 12 39	0 27 25	2 10 10	2 12 21
30	14	3	3 21 26	1 26 00	0 23 57	2 14 33	0 29 29	2 14☌32	2 16 43
July 2	17	3	3 21 39	1 26 27	0 25 23	2 16 28	1 1 34	2 18 53	2 21 02
4	19	3	3 21 53	1 26 54	0 26 49	2 18 22	1 3 40	2 23 10	2 25 17
6	21	3	3 22 07	1 27 20	0 28 15	2 20 16	1 5 47	2 27 22	2 29 26
8	23	3	3 22 21	1 27 47	0 29 40	2 22 11	1 7 55	3 1 29	3 3r29
10	25	3	3 22 35	1 28 13	1 1 05	2 24 05	1 10 03	3 5 28	3 7 26
12	26	3	3 22 49	1 28 39	1 2 30	2 26 00	1 12 13	3 9 21	3 11 14
14	28	3	3 23 03	1 29 06	1 3 55	2 27 54	1 14 23	3 13 06	3 14 56
16	30	3	3 23 18	1 29 31	1 5 19	2 29 49	1 16 34	3 16 44	3 18 30
18	2	4	3 23 32	1 29 57	1 6 43	3 1 43	1 18 46	3 20 14	3 21 56
20	4	4	3 23 47	2 0 23	1 8 06	3 3 38	1 20 58	3 23 36	3 25 15
22	6	4	3 24 02	2 0 48	1 9 29	3 5 32	1 23 11	3 26 51	3 28 26
24	8	4	3 24s17	2 1 13	1 10 52	3 7 27	1 25 25	3 29 59	4 1 30
26	10	4	3 24 32	2 1 38	1 12 14	3 9 21	1 27 39	4 2 59	4 4 26
28	13	4	3 24 47	2 2 02	1 13 37	3 11 16	1 29 53	4 5 51	4 7 15
30	15	4	3 25 02	2 2 26	1 14 58	3 13 11	2 2 08	4 8 36	4 9 55
Aug. 1	17	4	3 25 17	2 2 50	1 16 19	3 15 05	2 4 24	4 11 12	4 12 27

EPHEMERIS Longitudes of Planets 1977 A.D.

Ayanamsa on 1st Jan. : 23° 32′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	17	4	3 25s 17	2 2 50	1 16 19	3 15 05	2 4 24	4 11 12	4 12 27
3	19	4	3 25 32	2 3 14	1 17 40	3 17 00	2 6 41	4 13 40	4 14 50
5	21	4	3 25 48	2 3 37	1 19 01	3 18 55	2 8 57	4 15 59	4 17 04
7	23	4	3 26 03	2 4 00	1 20 21	3 20 50	2 11 15	4 18 08	4 19 08
9	25	4	3 26 18	2 4 23	1 21 41	3 22 45	2 13 32	4 20 06	4 21 01
11	27	4	3 26 34	2 4 45	1 23 00	3 24 40	2 15 51	4 21 53	4 22 42
13	29	4	3 26☌49	2 5 08	1 24 19	3 26 35	2 18 09	4 23 27	4 24 09
15	1	4	3 27 04	2 5 29	1 25 38	3 28 31	2 20 29	4 24 47	4 25 28
17	3	4	3 27 20	2 5 51	1 26 56	4 0 26	2 22 48	4 25 52	4 26 18
19	5	4	3 27 35	2 6 11	1 28 13	4 2 22	2 25 08	4 26 39	4 26 55
21	7	4	3 27 50	2 6 32	1 29 31	4 4 17	2 27 28	4 27 07	4R27 13
23	9	4	3 28 06	2 6 52	2 0 47	4 6 13	2 29 49	4 27s 13	4 27 08
25	11	4	3 28 21	2 7 12	2 2 04	4 8 08	3 2 10	4 26 58	4 26 40
27	14	4	3 28r 36	2 7 31	2 3 19	4 10 04	3 4 32	4 26 17	4 25 48
29	16	4	3 28 51	2 7 50	2 4 35	4 12 00	3 6 53	4 25 14	4 24 34
31	18	4	3 29 06	2 8 08	2 5 49	4 13 56	3 9 16	4 23 49	4 22 59
Sept. 2	20	4	3 29 21	2 8 26	2 7 04	4 15 52	3 11 38	4 22 05	4 21 10
4	22	4	3 29 36	2 8 43	2 8 18	4 17 48	3 14 01	4 20 12	4 19☌14
6	23	4	3 29 51	2 9 00	2 9 31	4 19 45	3 16 24	4 18 16	4 17 21
8	25	4	4 0 06	2 9 17	2 10 43	4 21 41	3 18 48	4 16 29	4 15 41
10	27	4	4 0 20	2 9 32	2 11 56	4 23 38	3 21 12	4 14 59	4 14r 23
12	29	4	4 0 35	2 9 48	2 13 07	4 25 34	3 23 36	4 13 56	4 13 57
14	1	5	4 0 49	2 10 02	2 14 18	4 27 31	3 26 00	4D13 26	4 13 25
16	3	5	4 1 03	2 10 16	2 15 28	4 29 28	3 28 25	4 13 33	4 13 51
18	6	5	4 1 17	2 10 30	2 16 38	5 1 25	4 0 50	4 14 18	4 14 53
20	8	5	4 1 31	2 10 43	2 17 47	5 3 23	4 3 16	4 15 38	4 16 31
22	10	5	4 1 45	2 10 55	2 18 55	5 5 20	4 5 41	4 17 31	4 18 39
24	12	5	4 1 59	2 11 07	2 20 03	5 7 17	4 8 07	4 19 52	4 21 12
26	14	5	4 2 12	2 11 18	2 21 09	5 9 15	4 10 33	4 22 36	4 24 06
28	16	5	4 2 25	2 11 28	2 22 16	5 11 13	4 13 00	4 25 38	4 27 15
30	18	5	4 2 38	2 11 38	2 23 21	5 13 10	4 15 26	4 28 53	5 0 34
Oct. 2	20	5	4 2 51	2 11 46	2 24 26	5 15 08	4 17 53	5 2 17	5 4 01
4	22	5	4 3 03	2 11 55	2 25 29	5 17 06	4 20 20	5 5 46	5 7s 32
6	24	5	4 3 16	2 12 02	2 26 32	5 19 05	4 22 48	5 9 18	5 11 05
8	25	5	4 3 28	2 12 09	2 27 34	5 21 03	4 25 15	5 12 51	5 14 38
10	27	5	4 3 40	2 12 15	2 28 35	5 23 02	4 27 49	5 16 24	5 18 10
12	30	5	4 3 51	2 12 20	2 29 36	5 25 00	5 0 11	5 19 55	5 21 40
14	2	6	4 4 03	2 12 25	3 0 35	5 26 59	5 2 39	5 23 25	5 25 09
16	4	6	4 4 14	2 12 29	3 1 33	5 28 58	5 5 08	5 26 52	5 28 35
18	6	6	4 4 25	2 12 32	3 2 30	6 0 57	5 7 36	6 0☌17	6 1 58
20	9	6	4 4 35	2 12 34	3 3 26	6 2 57	5 10 05	6 3 39	6 5 19
22	11	6	4 4 45	2 12 35	3 4 21	6 4 56	5 12 34	6 6 59	6 8 37
24	13	6	4 4 55	2 12R 35	3 5 14	6 6 55	5 15 03	6 10 16	6 11 54
26	15	6	4 5 05	2 12 35	3 6 07	6 8 55	5 17 32	6 13 31	6 15 07
28	16	6	4 5 14	2 12 34	3 6 58	6 10 55	5 20 01	6 16 44	6 18 19
30	18	6	4 5 23	2 12 33	3 7 48	6 12 54	5 22 31	6 19 54	6 21 29
Nov. 1	20	6	4 5 32	2 12 30	3 8 36	6 14 54	5 25 00	6 23 03	6 24 37
3	22	6	4 5 40	2 12 26	3 9 23	6 16 54	5 27 30	6 26 10	6 27 43
5	24	6	4 5 48	2 12 22	3 10 09	6 18 55	6 0 00	6 29 15	7 0 48
7	26	6	4 5 55	2 12 17	3 10 53	6 20 55	6 2 30	7 2 19	7 3 51
9	28	6	4 6 02	2 12 11	3 11 35	6 22 56	6 5 00	7 5 22	7 6 52
11	30	6	4 6 09	2 12 05	3 12 15	6 24 56	6 7 30	7 8r 22	7 9 52
13	2	7	4 6 15	2 11 57	3 12 54	6 26 57	6 10 00	7 11 22	7 12 51
15	5	7	4 6 21	2 11 49	3 13 31	6 28 58	6 12 31	7 14 19	7 15 47

1977 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	5 7	4 6 21	2R11 49	3 13 31	6 28 58	6 12 31	7 14 19	7 15 47
17	7 7	4 6 27	2 11 41	3 14 05	7 0 59	6 15 01	7 17 15	7 18 42
19	9 7	4 6 32	2 11 31	3 14 38	7 3 00	6 17 31	7 20 09	7 21 35
21	11 7	4 6 37	2 11 21	3 15 09	7 5 01	6 20 02	7 23 00	7 24 24
23	13 7	4 6 41	2 11 10	3 15 37	7 7 02	6 22 32	7 25 48	7 27 11
25	15 7	4 6 45	2 10 59	3 16 04	7 9 03	6 25 03	7 28 32	7 29 52
27	17 7	4 6 48	2 10 46	3 16 37	7 11 05	6 27 34	8 1 11	8 2 23
29	18 7	4 6 51	2 10 34	3 16 49	7 13 06	7 0 04	8 3 04	8 4 57
Dec. 1	20 7	4 6 54	2 10 21	3 17 08	7 15 08	7 2 35	8 6 08	8 7 16
3	22 7	4 6 56	2 10 07	3 17 24	7 17 09	7 5 06	8 8 21	8 9 21
5	24 7	4 6 58	2 9 53	3 17 38	7 19 11	7 7 37	8 10 17	8 11 10
7	26 7	4 6 59	2 9 38	3 17 48	7 21 13	7 10 08	8 11 55	8 12 35
9	28 7	4R 7 00	2 9 23	3 17 55	7 23 15	7 12 38	8 13 07	8 13 32
11	1 8	4 7 00	2 9 08	3 17 59	7 25 17	7 15 09	8 13 48	8R13 54
13	3 8	4 7 00	2 8 52	3R18 01	7 27 19	7 17 40	8 13 49	8 13 34
15	5 8	4 6 59	2 8 36	3 17 59	7 29 21	7 20 11	8 13 07	8 12s20
17	8 8	4 6 58	2 8 20	3 17 53	8 1 23	7 22 42	8 11 39	8 10 38
19	10 8	4 6 57	2 8 04	3 17 45	8 3 25	7 25 13	8 9 29	8 8 13
21	11 8	4 6 55	2 7 48	3 17 33	8 5 27	7 27 44	8 6☌52	8 5 29
23	13 8	4 6 53	2 7☌32	3 17 18	8 7 30	8 0 15	8 4 07	8 2 49
25	15 8	4 6 50	2 7 15	3 17 00	8 9 32	8 2s46	8 1 37	8 0 32
27	17 8	4 6 47	2 6 59	3 16 38	8 11 34	8 5 17	7 29 37	7 28 52
29	19 8	4 6 43	2 6 43	3 16 13	8 13 36	8 7 48	7 28 17	7 27 53
31	21 8	4 6 39	2 6 27	3 15 45	8 15 39	8 10 19	7 27 39	7D27 35
Jan. 2	22 8	4 6 34	2 6 11	3 15 14	8 17 41	8 12 50	7 27 41	7 27 51

Longitudes of Rahu, Uranus, Neptune and Pluto

Date	True ☊	Mean ☊	♅	♆	♇	Ayanam.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January 1	6 7 25	6 6 21	6 17 21	7 21 07	5R 20 35	23 32 17
February 1	6 3 50	6 4 42	6R 18 09	7 22 03	5 20 35	23 32 22
March 1	6 1 26	6 3 14	6 18 10	7R 22 31	5 20 07	23 32 25
April 1	6 0 41	6 1 35	6 17 23	7 22 13	5 19 20	23 32 28
May 1	6 0 44	5 29 59	6 16 12	7 22 07	5 18 32	23 32 31
June 1	5 29 51	5 28 21	6 14 58	7 21 22	5 17 59	23 32 35
July 1	5 27 22	5 26 45	6 14 14	7 20 34	5D 17 53	23 32 40
August 1	5 24 08	5 25 07	6D 14 15	7 19 59	5 18 17	23 32 44
September 1	5 22 02	5 23 28	6 15 04	7D 19 51	5 19 10	23 32 48
October 1	5 21 27	5 21 53	6 16 29	7 20 11	5 20 17	23 32 50
November 1	5 21 36	5 20 14	6 18 20	7 20 59	5 21 29	23 32 53
December 1	5 20 16	5 18 39	6 20 10	7 22 02	5 22 27	23 32 57
January 1	5 17 02	5 17 10	6 21 45	7 23 12	5 23 03	23 33 02

Combustion or Helincal Setting of Planets

Saturn	:	From July 25 to Aug. 27.
Jupiter	:	From May 22 to June 18.
Mars	:	Up to Jan. 27.
Venus	:	From Apr. 2 to Apr. 6 and Dec. 25 to end of the year.
Mercury	:	From Jan. 1 to Jan. 11, Feb. 24 to Mar. 26, Apr. 23 to May 12, June 19 to July 9, Aug. 23 to Sept 11, Oct. 5 to Nov. 11 and Dec. 16 to Dec. 26.

PLANET	RETROGRADE		DIRECT	
	Date	Long.	Date	Long.
	h m	s ° ′	h m	s ° ′
Mercury	76) Dec, 28, 9 52	8 29 47	Jan. 17, 13 42	8 13 34
	Apr. 20, 7 47	0 20 58	May 13, 26 21	0 11 10
	Aug. 22, 19 46	4 27 13	Sept. 14, 20 33	4 13 25
	Dec. 12, 7 24	8 13 54	Dec. 31. 27 48	7 27 35
Venus	Mar. 16, 8 27	0 1 01	Apr. 27, 15 21	11 14 42
Mars	Dec. 12, 24 39	3 19 01	— —	—
Jupiter	('76) Sept. 19, 24 11	1 7 40	Jan. 15, 16 21	0 27 39
	Oct. 24, 16 24	2 12 36	— —	—
Saturn	('76) Nov. 27, 24 12	3 23 20	Apr. 11, 11 13	3 16 25
	Dec. 11, 16 48	4 7 00	— —	—
Uranus	Feb. 12, 25 05	6 19 15	July 14, 11 14	6 14 08
Neptune	Mar. 16, 13 41	7 22 36	Aug. 23, 17 43	7 19 50
Pluto	Jan. 16, 11 47	5 20 39	June 21, 18 20	5 17 52

New-Moon and Full-Moon

New-Moon	d h m	Lunar months begin		Full-Moon	d h m	Hindi months begin	
				Jan.	5 18 40	Māgha	Vadi
Jan.	19 19 41	Māgha	Sukla	Feb.	4 9 26	Phālguna	,,
Feb.	18 9 07	Phālguna	,,	Mar.	5 22 43	Caitra	,,
Mar.	19 24 03	Caitra	,,	Apr.	4 9 39	Vaiśakha	,,
Apr.	18 16 05	Vaiśakha	,,	May	3 18 33	Jyaiṣṭha	,,
May	18 8 21	Jyaiṣṭha	,,	June	1 26 01	Āṣaḍha	,,
June	16 23 53	Āṣāḍha	,,	July	1 8 54	Śrāvṇa (*Mala*)	,,
July	16 14 07	Śravaṇa (*Mala*)	,,	July	30 16 22	Śrāvaṇa (*Adhika*)	,,
Aug.	14 27 01	Śrāvana (*Adhika*)	,,	Aug.	28 25 40	Bhādra	,,
Sept.	13 14 53	Bhādra	,,	Sept.	27 13 47	Āśvina	,,
Oct.	12 26 01	Āśvina	,,	Oct.	26 29 05	Kārtika	,,
Nov.	11 12 39	Kārtika	,,	Nov.	25 23 01	Agrahā	,,
Dec.	10 23 03	Agrahā	,,	Dec.	25 18 19	Pauṣa	,,

Sun's entry into Nirayana Signs

			d h m				d h m
Makara	on	Jan.	13 25 30	Karkaṭa	on	July	16 10 18
Kumbha	on	Feb.	12 14 31	Siṁha	on	Aug.	16 18 37
Mina	on	Mar.	14 11 27	Kanyā	on	Sept.	16 18 30
Meṣa	on	Apr.	13 20 00	Tulā	on	Oct.	17 6 24
Vṛṣa	on	May	14 16 54	Vṛścika	on	Nov.	16 6 11
Mithuna	on	June	14 23 29	Dhanus	on	Dec.	15 20 40

1978 A.D. Longitude of Moon CONDENSED

Saka era 1899-1900, Saṁvat 2034-35 (Apr. 8, Nov. 1), B. S. 1384-85 (Apr. 15),
Kollam era 1153-54 (Aug. 17), 52 Kālayukta (Apr. 8, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ५) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.25	9	9	2	3	44	2	15	37	2	27	32	3	9	31	3	21	35	4	3	47	4	16	08
Jan. 1	16	9	4	28	42	5	11	34	5	24	47	6	8	25	6	22	30	7	7	02	7	21	57
8	23	9	8	7	09	8	22	27	9	7	39	9	22	36	10	7	08	10	21	12	11	4	45
15	1	10	11	17	49	0	0	30	0	12	50	0	24	57	1	6	53	1	18	45	2	0	36
22	8	10	2	12	28	2	24	24	3	6	26	3	18	34	4	0	49	4	13	13	4	25	46
29	15	10	5	8	31	5	21	30	6	4	44	6	18	18	7	2	12	7	16	27	8	1	01
Feb. 5	22	10	8	15	50	9	0	48	9	15	44	10	0	30	10	14	58	10	29	03	11	12	40
12	29	10	11	25	52	0	8	38	0	21	04	1	3	14	1	15	13	1	27	06	2	8	57
19	7	11	2	20	51	3	2	51	3	14	59	3	27	17	4	9	46	4	22	27	5	5	20
26	14	11	5	18	25	6	1	43	6	15	12	6	28	55	7	12	50	7	26	57	8	11	16
Mar. 5	21	11	8	25	41	9	10	10	9	24	38	10	8	58	10	23	06	11	6	56	11	20	27
12	28	11	0	3	36	0	16	24	0	28	53	1	11	16	1	23	08	2	5	03	2	16	56
19	5	12	2	28	51	3	10	52	3	23	04	4	5	30	4	18	10	5	1	08	5	14	22
26	12	12	5	27	53	6	11	37	6	25	32	7	9	37	7	23	47	8	8	00	8	22	13
Apr. 2	19	12	9	6	24	9	20	31	10	4	31	10	18	22	11	2	01	11	15	28	11	28	40
9	26	12	0	11	37	0	24	18	1	6	44	1	18	56	2	0	59	2	12	54	2	24	47
16	2	1	3	6	42	3	18	43	4	0	55	4	13	22	4	25	09	5	9	17	5	22	47
23	9	1	6	6	39	6	20	50	7	5	14	7	19	47	8	4	21	8	18	51	9	3	12
30	16	1	9	11	22	10	1	17	10	14	59	10	28	27	11	11	42	11	24	44	0	7	35
May 7	23	1	0	20	14	1	2	41	1	14	58	1	27	06	2	9	05	2	20	59	3	2	51
14	30	1	3	14	44	3	26	48	4	8	52	4	21	18	5	4	04	5	17	14	6	0	51
21	6	2	6	14	55	6	29	23	7	14	10	7	29	08	8	14	08	8	29	00	9	13	37
28	13	2	9	27	55	10	11	51	10	25	27	11	8	42	11	21	41	0	4	26	0	16	58
June 4	20	2	0	29	21	1	11	35	1	23	42	2	5	42	2	17	37	2	29	29	3	11	19
11	27	2	3	23	11	4	5	09	4	17	17	4	29	39	5	12	21	5	25	28	6	9	03
18	3	3	6	23	07	7	7	40	7	22	36	8	7	48	8	23	05	9	8	15	9	23	09
25	10	3	10	7	40	10	21	45	11	5	24	11	18	38	0	1	30	0	14	06	0	26	28
July 2	17	3	1	8	39	1	20	43	2	2	41	2	14	36	2	26	28	3	8	19	3	20	10
9	24	3	4	2	05	4	14	05	4	26	15	5	8	38	5	21	18	6	4	21	6	17	50
16	31	3	7	1	47	7	16	13	8	1	04	8	16	14	9	1	32	9	16	48	10	1	51
23	6	4	10	16	32	11	0	47	11	14	33	11	27	53	0	10	48	0	23	22	1	5	41
30	13	4	1	17	47	1	29	46	2	11	39	2	23	31	3	5	22	3	17	15	3	29	12
Aug. 6	20	4	4	11	13	4	23	22	5	5	40	5	18	10	6	0	56	6	14	00	6	27	26
13	27	4	7	11	16	7	25	30	8	10	06	8	24	59	9	10	04	9	25	09	10	10	07
20	3	5	10	24	48	11	9	06	11	22	58	0	6	23	0	19	24	1	2	02	1	14	22
27	10	5	1	26	29	2	8	22	2	20	19	3	2	10	3	14	03	3	26	00	4	8	04
Sept. 3	17	5	4	20	17	5	2	40	5	15	14	5	28	00	6	11	00	6	24	15	7	7	47
10	24	5	7	21	35	8	5	39	8	19	59	9	4	32	9	19	12	10	3	54	10	18	32
17	31	5	11	2	58	11	17	08	0	0	57	0	14	24	0	27	27	1	10	09	1	22	32
24	7	6	2	4	41	2	16	39	2	28	31	3	10	23	3	22	18	4	4	20	4	16	32
Oct. 1	14	6	4	28	57	5	11	36	5	24	30	6	7	40	6	21	03	7	4	40	7	18	28
8	21	6	8	2	25	8	16	30	9	0	41	9	14	56	9	29	11	10	13	26	10	27	36
15	28	6	11	11	37	11	25	27	0	9	03	0	22	20	1	5	20	1	18	00	2	0	24
22	4	7	2	12	33	2	24	32	3	6	24	3	18	16	4	0	10	4	12	13	4	24	30
29	11	7	5	7	03	5	19	56	6	3	09	6	16	42	7	0	34	7	14	39	7	28	53
Nov. 5	18	7	8	13	12	8	27	30	9	11	44	9	25	52	10	9	52	10	23	44	11	7	28
12	25	7	11	21	03	0	4	27	0	17	41	1	0	41	1	13	28	1	26	01	2	8	21
19	3	8	2	20	27	3	2	25	3	14	16	3	26	05	4	7	57	4	19	58	5	2	14
26	10	8	5	14	48	5	27	46	6	11	06	6	24	50	7	9	12	7	23	44	8	8	27
Dec. 3	17	8	8	23	13	9	7	54	9	22	25	10	6	40	10	20	39	11	4	22	11	17	50
10	24	8	0	1	04	0	14	06	0	26	58	1	9	38	1	22	09	2	4	39	2	16	40
17	1	9	2	28	41	3	10	35	3	22	24	4	4	11	4	16	02	4	28	00	5	10	12
24	8	9	5	22	42	6	5	36	6	18	58	7	2	50	7	17	10	8	1	55	8	16	57
31	15	9	9	2	06	9	17	11	10	2	04	10	16	35	11	0	49	11	14	37	11	28	03

Longitudes of Planets

1978 A.D.

Ayanamsa on 1st Jan. : 23° 33′ 02″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ नि	गु ♃ रु	मं ♂ ल	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	22	8	4R 6 37	2R 6 19	3R 15 30	8 16 40	8 11s 35	7 27 35	7 27 41
3	24	8	4 6 32	2 6 03	3 14 58	8 18 42	8 14 06	7 27 54	7 28 16
5	26	8	4 6 27	2 5 48	3 14 22	8 20 44	8 16 37	7 28 44	7 29 19
7	28	8	4 6 22	2 5 33	3 13 44	8 22 47	8 19 08	7 29 59	8 0 45
9	30	8	4 6 16	2 5 18	3 13 04	8 24 49	8 21 39	8 1 35	8 2 29
11	3	9	4 6 10	2 5 04	3 12 21	8 26 51	8 24 10	8 3 27	8 4 28
13	5	9	4 6 03	2 4 50	3 11 37	8 28 54	8 26 41	8 5 31	8 6 38
15	7	9	4 5 56	2 4 37	3 10 51	9 0 56	8 29 12	8 7 47	8 8 57
17	9	9	4 5 49	2 4 24	3 10 04	9 2 58	9 1 42	8 10 10	8 11 25
19	11	9	4 5 42	2 4 12	3 9 16	9 5 00	9 4 13	8 12 41	8 13 58
21	12	9	4 5 34	2 4 00	3 8 28	9 7 02	9 6 44	8 15 17	8 16 37
23	14	9	4 5 26	2 3 49	3 7 40	9 9 04	9 9 15	8 17 59	8 19 21
25	16	9	4 5 18	2 3 39	3 6 52	9 11 06	9 11 46	8 20 44	8 22 09
27	18	9	4 5 09	2 3 29	3 6 06	9 13 08	9 14 16	8 23 34	8 25 00
29	20	9	4 5 00	2 3 20	3 5 20	9 15 10	9 16 47	8 26 27	8 27 55
31	22	9	4 4 52	2 3 12	3 4 35	9 17 12	9 19 18	8 29 23	9 0 53
Feb. 2	24	9	4 4 42	2 3 04	3 3 53	9 19 14	9 21 48	9 2 23	9 3 54
4	26	9	4 4 33	2 2 57	3 3 12	9 21 16	9 24 19	9 5 26	9 6 58
6	29	9	4 4 24	2 2 51	3 2 34	9 23 17	9 26 50	9 8 31	9 10s 05
8	1	10	4 4 14	2 2 46	3 1 58	9 25 19	9 29 20	9 11 40	9 13 16
10	3	10	4 4 05	2 2 41	3 1 25	9 27 20	10 1 51	9 14 52	9 16 29
12	5	10	4 3 55	2 2 38	3 0 55	9 29 22	10 4 21	9 18 07	9 19 46
14	7	10	4 3 45	2 2 35	3 0 27	10 1 23	10 6 52	9 21 26	9 23 06
16	9	10	4 3 36	2 2 33	3 0 03	10 3 24	10 9r 22	9 24 47	9 26 30
18	11	10	4 3 26	2 2 32	2 29 42	10 5 25	10 11 52	9 28 13	9 29 57
20	13	10	4 3 16	2D 2 31	2 29 25	10 7 26	10 14 22	10 1 42	10 3 27
22	14	10	4 3 07	2 2 32	2 29 10	10 9 27	10 16 52	10 5 14	10 7 02
24	16	10	4 2 57	2 2 33	2 28 59	10 11 28	10 19 22	10 8 51	10 10 40
26	18	10	4 2 47	2 2 35	2 28 51	10 13 29	10 21 52	10 12 31	10 14 22
28	20	10	4 2 38	2 2 37	2 28 46	10 15 29	10 24 22	10 16 15	10 18 08
Mar. 2	23	10	4 2 29	2 2 41	2D 28 43	10 17 30	10 26 52	10 20 02	10 21 56
4	25	10	4 2 20	2 2 45	2 28 44	10 19 30	10 29 21	10 23 52	10 25 48
6	27	10	4 2 11	2 2 50	2 28 48	10 21 30	11 1 51	10 27 44	10 29 40
8	29	10	4 2 02	2 2 56	2 28 55	10 23 30	11 4 21	11 1 36	11 3 33
10	1	11	4 1 53	2 3 03	2 29 04	10 25 30	11 6 50	11 5r 28	11 7 23
12	4	11	4 1 45	2 3 10	2 29 16	10 27 30	11 9 20	11 9 17	11 11 09
14	5	11	4 1 37	2 3 18	2 29 31	10 29 30	11 11 49	11 13 00	11 14 48
16	7	11	4 1 29	2 3 27	2 29 48	11 1 30	11 14 18	11 16 33	11 18 15
18	9	11	4 1 21	2 3 36	3 0 07	11 3 29	11 16 47	11 19 53	11 21 27
20	11	11	4 1 14	2 3 46	3 0 29	11 5 28	11 19 16	11 22 57	11 24 21
22	13	11	4 1 07	2 3 57	3 0 53	11 7 27	11 21 45	11 25 39	11 26 52
24	15	11	4 1 01	2 4 09	3 1 18	11 9 26	11 24 14	11 27 58	11 28 58
26	17	11	4 0 54	2 4 21	3 1 46	11 11 25	11 26 42	11 29 50	0 0 36
28	19	11	4 0 48	2 4 33	3 2 16	11 13 24	11 29 11	0 1 14	0 1 45
30	21	11	4 0 43	2 4 47	3 2 48	11 15 23	0 1 39	0 2 08	0 2 24
Apr. 1	23	11	4 0 38	2 5 00	3 3 21	11 17 21	0 4 07	0R 2 33	0 2 34
3	26	11	4 0 33	2 5 15	3 3 56	11 19 20	0 6 35	0 2 28	0 2s 16
5	28	11	4 0 28	2 5 30	3 4 33	11 21 18	0 9 03	0 1 57	0 1 32
7	30	11	4 0 24	2 5 45	3 5 11	11 23 16	0 11 31	0 1 03	0 0 28
9	2	12	4 0 20	2 6 02	3 5 50	11 25 14	0 13 59	11 29 50	11 29 08
11	4	12	4 0 17	2 6 18	3 6 31	11 27 12	0 16 27	11 28 25	11 27 40
13	6	12	4 0 14	2 6 35	3 7 14	11 29 10	0 18 54	11 26 54	11 26 09
15	7	12	4 0 12	2 6 53	3 7 57	0 1 07	0 21 22	11 25 25	11 24 43
17	9	12	4 0 10	2 7 11	3 8 42	0 3 05	0 23 49	11 24 04	11 23 28

1978 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 33' 02"

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	*Tithi & Month*		श ♄ नि	गु ♃ रु	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Apr 17	9	12	4R 0 10	2 7 11	3 8 42	0 3 05	0 23 49	11 R24 s04	11 23 28
19	11	12	4 0 08	2 7 30	3 9 28	0 5 02	0 26 16	11 22 56	11 22 28
21	13	12	4 0 07	2 7 49	3 10 15	0 6 59	0 28 43	11 22 04	11 21r45
23	15	12	4 0 07	2 8 08	3 11 04	0 8 56	1 1 10	11 21 31	11 21 22
25	18	12	4D 0 06	2 8 28	3 11 53	0 10 53	1 3 36	11D21 18	11 21 20
27	20	12	4 0 06	2 8 49	3 12 43	0 12 50	1 6 03	11 21 25	11 21 36
29	22	12	4 0 07	2 9 09	3 13 34	0 14 46	1 8 29	11 21 52	11 22 12
May 1	24	12	4 0 07	2 9 30	3 14 26	0 16 43	1 10 55	11 22 37	11 23 06
3	26	12	4 0 09	2 9 51	3 15 19	0 18 39	1 13 21	11 23 39	11 24 16
5	28	12	4 0 11	2 10 13	3 16 13	0 20 36	1 15 47	11 24 57	11 25 41
7	30	12	4 0 13	2 10 35	3 17 07	0 22 32	1 18 13	11 26 29	11 27 21
9	2	1	4 0 16	2 10 57	3 18 02	0 24 28	1 20 38	11 28 15	11 29 13
11	4	1	4 0 19	2 11 20	3 18 59	0 26 24	1 23 04	0 0 14	0 1 18
13	6	1	4 0 22	2 11 43	3 19 55	0 28 20	1 25 29	0 2 24	0 3 34
15	8	1	4 0 26	2 12 06	3 20 53	1 0 16	1 27 54	0 4 46	0 6 00
17	10	1	4 0 30	2 12 30	3 21 51	1 2 11	2 0 19	0 7 17	0 8 37
19	12	1	4 0 35	2 12 53	3 22 50	1 4 07	2 2 44	0 9 59	0 11 24
21	14	1	4 0 40	2 13 17	3 23 49	1 6 02	2 5 08	0 12 50	0 14 20
23	16	1	4 0 45	2 13 42	3 24 49	1 7 58	2 7 33	0 15 51	0 17 25
25	18	1	4 0 51	2 14 06	3 25 50	1 9 53	2 9 57	0 19 01	0 20 40
27	21	1	4 0 58	2 14 31	3 26 51	1 11 48	2 12 21	0 22 21	0 24 04
29	23	1	4 1 04	2 14 56	3 27 52	1 13 43	2 14 44	0 25 49	0 27 37
31	25	1	4 1 11	2 15 21	3 28 54	1 15 38	2 17 08	0 29 27	1 1 19
June 2	27	1	4 1 18	2 15 46	3 29 57	1 17 33	2 19 31	1 3s14	1 5 10
4	29	1	4 1 26	2 16 12	4 1 00	1 19 28	2 21 54	1 7 09	1 9 10
6	1	2	4 1 34	2 16 38	4 2 04	1 21 23	2 24 17	1 11 13	1 13 17
8	3	2	4 1 42	2 17 03	4 3 08	1 23 18	2 26 40	1 15 24	1 17 32
10	4	2	4 1 51	2 17 29	4 4 13	1 25 13	2 29 02	1 19 41	1 21 51
12	6	2	4 2 00	2 17 56	4 5 18	1 27 08	3 1 24	1 24 02	1 26 14
14	8	2	4 2 09	2 18 22	4 6 23	1 29 02	3 3 46	1 28☉25	2 0 37
16	10	2	4 2 19	2 18 48	4 7 29	2 0 57	3 6 08	2 2 49	2 5 01
18	12	2	4 2 29	2 19 15	4 8 35	2 2 52	3 8 29	2 7 11	2 9 21
20	14	2	4 2 39	2 19 41	4 9 42	2 4 46	3 10 50	2 11 29	2 13 36
22	17	2	4 2 50	2 20 08	4 10 49	2 6 41	3 13 11	2 15 41	2 17r45
24	19	2	4 3 00	2 20 34	4 11 56	2 8 35	3 15 32	2 19 47	2 21 47
26	21	2	4 3 11	2 21s01	4 13 04	2 10 29	3 17 52	2 23 45	2 25 41
28	24	2	4 3 23	2 21 28	4 14 12	2 12 24	3 20 11	2 27 35	2 29 27
30	25	2	4 3 34	2 21 55	4 15 21	2 14 18	3 22 31	3 1 16	3 3 04
July 2	27	2	4 3 46	2 22 21	4 16 29	2 16 13	3 24 50	3 4 50	3 6 33
4	29	2	4 3 58	2 22 49	4 17 39	2 18 07	3 27 09	3 8 14	3 9 54
6	1	3	4 4 10	2 23 16	4 18 48	2 20 02	3 29 27	3 11 31	3 13 05
8	3	3	4 4 23	2 23 43	4 19 58	2 21 56	4 1 45	3 14 38	3 16 09
10	5	3	4 4 35	2 24☉10	4 21 08	2 23 51	4 4 03	3 17 37	3 19 03
12	7	3	4 4 48	2 24 37	4 22 19	2 25 45	4 6 20	3 20 27	3 21 49
14	9	3	4 5 01	2 25 04	4 23 30	2 27 39	4 8 37	3 23 08	3 24 25
16	11	3	4 5 14	2 25 31	4 24 41	2 29 34	4 10 53	3 25 39	3 26 51
18	13	3	4 5 28	2 25 58	4 25 53	3 1 28	4 13 09	3 28 01	3 29 08
20	15	3	4 5 41	2 26 25	4 27 04	3 3 23	4 15 24	4 0 12	4 1 13
22	18	3	4 5 55	2 26r52	4 28 15	3 5 17	4 17 39	4 2 12	4 3 07
24	20	3	4 6 09	2 27 18	4 29 29	3 7 12	4 19 53	4 3 59	4 4 49
26	22	3	4 6 23	2 27 45	5 0 42	3 9 06	4 22 06	4 5 34	4 6 16
28	24	3	4 6 38	2 28 12	5 1 55	3 11 01	4 24 19	4 6 55	4 7 29
30	26	3	4 6 51	2 28 38	5 3 08	3 12 56	4 26 33	4 8 00	4 8 26
Aug. 1	28	3	4 7 06	2 29 05	5 4 21	3 14 51	4 28 43	4 8 48	4 9 05

Ayanamsa on 1st Jan. : 23° 33' 02"

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	गु ♃ रु	म ♂ ग	र ☉ व	शु ♀ क्र	बु ☿ ध	♀ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Aug. 1	23	3	4 7 06	2 29 05	5 4 21	3 14 51	4 28 43	4 8 48	4 9 05
3	30	3	4 7 20	2 29 31	5 5 35	3 16 46	5 0 54	4 9 17	4R 9 25
5	1	4	4 7 35	2 29 57	5 6 50	3 18 40	5 3 04	4 9 27	4 9s24
7	3	4	4 7s50	3 0 24	5 8 04	3 20 35	5 5 14	4 9 16	4 9 03
9	5	4	4 8 05	3 0 50	5 9 19	3 22 31	5 7 22	4 8 44	4 8 20
11	7	4	4 8 19	3 1 15	5 10 24	3 24 26	5 9 30	4 7 51	4 7 17
13	9	4	4 8 34	3 1 41	5 11 49	3 26 21	5 11 37	4 6 39	4 5 56
15	11	4	4 8 49	3 2 07	5 13 05	3 28 16	5 13 43	4 5 11	4 4 22
17	14	4	4 9 05	3 2 32	5 14 21	4 0 11	5 15 47	4 3 32	4 2⊙41
19	16	4	4 9 20	3 2 57	5 15 37	4 2 07	5 17 51	4 1 49	4 0 59
21	18	4	4 9 35	3 3 22	5 16 53	4 4 02	5 19 53	4 0 11	3 29 26
23	21	4	4 9 50	3 3 47	5 18 10	4 5 58	5 21 54	3 28 45	3 28 09
25	23	4	4 10 05	3 4 12	5 19 27	4 7 53	5 23 54	3 27r38	3 27 15
27	24	4	4 10⊙20	3 4 36	5 20 44	4 9 49	5 25 53	3 26 58	3D26 49
29	26	4	4 10 36	3 5 00	5 22 01	4 11 45	5 27 50	3 26 47	3 26 54
31	28	4	4 10 51	3 5 24	5 23 19	4 13 41	5 29 45	3 27 10	3 27 33
Sept. 2	30	4	4 11 06	3 5 47	5 24 37	4 15 37	6 1 39	3 28 05	3 28 45
4	2	5	4 11 21	3 6 11	5 25 55	4 17 34	6 3 31	3 29 33	4 0 28
6	4	5	4 11 36	3 6 34	5 27 14	4 19 30	6 5 21	4 1 31	4 2 40
8	6	5	4 11 51	3 6 57	5 28 33	4 21 26	6 7 09	4 3 55	4 5 17
10	8	5	4 12r06	3 7 19	5 29 52	4 23 23	6 8 54	4 6 43	4 8 15
12	10	5	4 12 21	3 7 41	6 1 11	4 25 20	6 10 37	4 9 50	4 11 29
14	12	5	4 12 36	3 8 03	6 2 31	4 27 16	6 12 19	4 13 12	4 14 56
16	15	5	4 12 51	3 8 24	6 3 51	4 29 13	6 13 56	4 16 43	4 18 32
18	17	5	4 13 06	3 8 45	6 5 11	5 1 10	6 15 30	4 20s21	4 22 12
20	19	5	4 13 21	3 9 06	6 6 32	5 3 07	6 17 01	4 24 03	4 25 55
22	21	5	4 13 35	3 9 26	6 7 52	5 5 05	6 18 29	4 27 46	4 29 38
24	23	5	4 13 50	3 9 46	6 9 13	5 7 02	6 19 52	5 1 29	5 3 20
26	25	5	4 14 04	3 10 06	6 10 34	5 9 00	6 21 12	5 5 10	5 7 00
28	26	5	4 14 18	3 10 25	6 11 56	5 10 57	6 22 27	5 8 49	5 10 37
30	28	5	4 14 32	3 10 44	6 13 18	5 12 55	6 23 37	5 12⊙25	5 14 11
Oct. 2	30	5	4 14 46	3 11 02	6 14 4[illegible]	5 14 53	6 24 42	5 15 5[illegible]	5 17 42
4	2	6	4 15 00	3 11 20	6 16 02	5 16 51	6 25 41	5 19 26	5 21 10
6	4	6	4 15 14	3 11 37	6 17 25	5 18 50	6 26 35	5 22 52	5 24 34
8	6	6	4 15 27	3 11 51	6 18 47	5 20 48	6 27 21	5 26 15	5 27 55
10	9	6	4 15 40	3 12 10	6 20 10	5 22 47	6 28 00	5 29 34	6 1 13
12	11	6	4 15 53	3 12 26	6 21 34	5 24 45	6 28 32	6 2 51	6 4 28
14	13	6	4 16 06	3 12 41	6 22 57	5 26 44	6 28 55	6 6 04	6 7 40
16	15	6	4 16 19	3 12 55	6 24 21	5 28 43	6 29 09	6 9 16	6 10 50
18	17	6	4 16 31	3 13 09	6 25 45	6 0 42	6R29 15	6 12 23	6 13 56
20	19	6	4 16 44	3 13 23	6 27 10	6 2 41	6 29 11	6 15 29	6 17 01
22	21	6	4 16 56	3 13 36	6 28 34	6 4 40	6 28 57	6 18 32	6 20r03
24	23	6	4 17 07	3 13 48	6 29 59	6 6 40	6 28 34	6 21 33	6 23 02
26	25	6	4 17 19	3 14 00	7 1 24	6 8 39	6 28 01	6 24 31	6 25 59
28	27	6	4 17 30	3 14 11	7 2 49	6 10 39	6 27 20	6 27 27	6 28 54
30	29	6	4 17 41	3 14 21	7 4 15	6 12 39	6 26s29	7 0 21	7 1 46
Nov. 1	1	7	4 17 52	3 14 31	7 5 41	6 14 39	6 25 31	7 3 11	7 4 36
3	3	7	4 18 02	3 14 40	7 7 07	6 16 39	6 24 27	7 5 59	7 7 22
5	5	7	4 18 12	3 14 48	7 8 33	6 18 39	6 23 19	7 8 44	7 10 05
7	7	7	4 18 22	3 14 55	7 10 00	6 20 40	6 22⊙07	7 11 24	7 12 43
9	9	7	4 18 31	3 15 02	7 11 27	6 22 40	6 20 54	7 14 00	7 15 16
11	12	7	4 18 40	3 15 08	7 12 54	6 24 41	6 19r42	7 16 30	7 17 42
13	14	7	4 18 49	3 15 14	7 14s21	6 26 41	6 18 32	7 18 52	7 20 00
15	16	7	4 18 57	3 15 18	7 15 49	6 28 42	6 17 28	7 21 06	7 22 08

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Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	16	7	4 18 57	3 15 18	7 15 49	6 28 42	6R17 28	7 21 06	7 22 08
17	18	7	4 19 05	3 15 22	7 17 17	7 0 43	6 16 29	7 23 08	7 24 03
19	19	7	4 19 13	3 15 25	7 18 45	7 2 44	6 15 39	7 24 51	7 25 41
21	21	7	4 19 20	3 15 28	7 20 13	7 4 45	6 14 57	7 26 22	7 26 58
23	23	7	4 19 27	3 15 29	7 21 41	7 6 46	6 14 25	7 27 26	7 27 47
25	25	7	4 19 34	3R15 30	7 23 10	7 8 48	6 14 02	7 28 00	7R28 04
27	27	7	4 19 40	3 15 30	7 24 39	7 10 49	6 13 49	7 27 58	7 27 42
29	29	7	4 19 46	3 15 29	7 26 08	7 12 51	6D13 47	7 27s15	7 26 37
Dec. 1	1	8	4 19 51	3 15 27	7 27 38	7 14 52	6 13 54	7 25 48	7 24 48
3	4	8	4 19 56	3 15 25	7 29 07	7 16 54	6 14 10	7 23 40	7 22 25
5	6	8	4 20 01	3 15 22	8 0 37	7 18 56	6 14 35	7 21◦05	7 19 42
7	8	8	4 20 05	3 15 18	8 2 07	7 20 58	6 15 09	7 18 20	7 17 00
9	10	8	4 20 09	3 15 13	8 3 37	7 22 59	6 15 50	7 15 47	7 14r41
11	12	8	4 20 12	3 15 07	8 5 08	7 25 01	6 16 39	7 13 45	7 13 00
13	14	8	4 20 15	3 15 01	8 6 38	7 27 03	6 17 35	7 12 25	7 12 02
15	16	8	4 20 17	3 14 54	8 8 09	7 29 05	6 18 37	7D11 50	7 11 48
17	18	8	4 20 19	3 14 46	8 9 40	8 1 07	6 19 46	7 11 56	7 12 13
19	20	8	4 20 21	3 14 37	8 11 11	8 3 09	6 21 00	7 12 39	7 13 11
21	21	8	4 20 22	3 14 28	8 12 43	8 5 12	6 22 19	7 13 51	7 14 36
23	23	8	4 20 22	3 14 18	8 14 14	8 7 14	6 23 43	7 15 26	7 16 21
25	25	8	4R20 23	3 14 08	8 15 46	8 9 16	6 25 11	7 17 20	7 18 23
27	27	8	4 20 22	3 13 56	8 17 18	8 11 18	6 26 44	7 19 29	7 20 37
29	30	8	4 20 22	3 13 45	8 18 50	8 13 21	6 28 20	7 21 48	7 23 01
31	2	9	4 20 20	3 13 32	8 20 22	8 15 23	6 29 59	7 24 16	7 25 33
Jan. 2	4	9	4 20 19	3 13 19	8 21 55	8 17 25	7 1 42	7 26 52	7 28 11

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ °
January	1	5 17 02	5 17 00	6 21 45	7 23 12	5 23 03	23 33 02
February	1	5 13 45	5 15 22	6 22 42	7 24 09	5R 23 05	23 33 07
March	1	5 12 25	5 13 52	6R 22 49	7 24 40	5 22 41	23 33 10
April	1	5 12 22	5 12 14	6 22 11	7R 24 44	5 21 54	23 33 12
May	1	5 12 02	5 10 39	6 21 01	7 24 20	5 21 05	23 33 15
June	1	5 10 04	5 9 00	6 19 46	7 23 35	5 20 29	23 33 19
July	1	5 6 58	5 7 25	6 18 56	7 22 48	5D 20 21	23 33 24
August	1	5 4 16	5 5 46	6D 18 48	7D 22 11	5 20 44	23 33 29
September	1	5 3 16	5 4 03	6 19 30	7 22 00	5 21 34	23 33 32
October	1	5 3 18	5 2 32	6 20 49	7 22 18	5 22 40	23 33 34
November	1	5 2 41	5 0 54	6 22 38	7 23 04	5 23 53	23 33 37
December	1	5 0 12	4 29 18	6 24 29	7 24 07	5 24 53	23 33 41
January	1	4 26 38	4 27 40	6 26 08	7 25 16	5 25 31	23 33 47

Combustion or Heliacal Setting of Planets

Saturn :	From Aug. 8 to Sept. 10.
Jupiter :	From June 26 to July 22.
Mars :	From Nov. 13 to the end of the year.
Venus :	Upto Feb. 16 then from Oct. 30 to Nov. 11.
Mercury :	From Feb. 7 to Mar. 10, Apr. 4 to Apr. 22, June 2 to June 23, Aug. 6 to Aug. 25, Sept. 18 to Oct. 23 and Nov. 29 to Dec. 10.

Retrogression of Planets

PLANET	RETROGRADE Date	h	m	Long s	°	′	DIRECT Date	h	m	Long. s	°	′
Mercury	Apr. 1,	21	53	0	2	34	Apr. 25,	12	20	11	21	18
	Aug. 4,	28	32	4	9	27	Aug. 28,	21	07	3	26	48
	Nov. 25,	26	54	7	28	04	Dec. 15,	21	38	7	11	49
Venus	Oct. 18,	9	24	6	29	15	Nov. 28,	18	42	6	13	47
Mars	('77) Dec. 12,	24	39	3	18	01	Mar. 2,	15	38	2	28	43
Jupiter	('77) Oct. 24,	16	24	2	12	36	Feb. 20,	6	52	2	2	31
	Nov. 25,	26	01	3	15	30	('79) Mar. 26,	11	43	3	5	26
Saturn	('77) Dec. 11,	16	48	4	7	00	Apr. 25,	17	07	4	0	06
	Dec. 24,	26	45	4	20	23	—	—			—	
Uranus	Feb. 19,	20	49	6	22	51	July 21,	16	22	6	18	46
Neptune	Mar. 20,	23	00	7	24	46	Aug. 28,	6	34	7	21	59
Pluto	Jan. 19,	6	15	5	23	09	June 24,	12	59	5	20	21

New-Moon and Full-Moon

New-Moon	d	h	m	Lunar months begin		Full-Moon	d	h	m	Hindi months begin	
Jan.	9	9	30	Pauṣa	Sukla	Jan.	24	13	26	Māgha	Vadi
Feb.	7	20	24	Māgha	"	Feb.	23	6	56	Phālguna	"
Mar.	9	8	06	Phālguna	"	Mar.	24	21	50	Caitra	"
Apr.	7	20	45	Caītra	"	Apr.	23	9	41	Vaiśakha	"
May	7	10	17	Vaiśākha	"	May	22	18	47	Jyaiṣṭha	"
June	5	24	32	Jyaiṣṭha	"	June	20	26	01	Āṣāḍha	"
July	5	15	20	Āṣāḍha	"	July	20	8	35	Śrāvaṇa	"
Aug.	4	6	31	Śravana	"	Aug.	18	15	44	Bhādra	"
Sept.	2	21	39	Bhādra	"	Sept.	16	24	31	Āśvina	"
Oct.	2	12	11	Āśvina	"	Oct.	16	11	40	Kārtika	"
Oct.	31	25	37	Kārtika	"	Nov.	14	25	30	Agrahā	"
Nov.	30	13	49	Marga	"	Dec.	14	18	01	Pauṣa	"
Dec.	29	25	06	Pauṣa	"				—		

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	7	33	Karkaṭa	on	July	16	16	27
Kumbha	on	Feb.	12	20	36	Siṁha	on	Aug.	16	24	48
Mina	on	Mar.	14	17	33	Kanyā	on	Sept.	16	24	41
Meṣa	on	Apr.	13	26	07	Tulā	on	Oct.	17	12	37
Vṛṣa	on	May	14	23	01	Vṛścika	on	Nov.	16	12	24
Mithuna	on	June	15	5	37	Dhanus	on	Dec.	15	27	03

Saka era 1900-01, Samvat 2035-36 (Mar. 29, Oct. 12), B.S. 1385-86 (Apr. 15), Kollam era 1154-55 (Aug. 17), 53 Siddharthin (Mar. 29, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 31	15 9	9 2 06	9 17 11	10 2 04	10 16 38	11 0 49	11 14 37	11 28 03
Jan. 7	22 9	0 11 10	0 23 59	1 6 35	1 19 00	2 1 15	2 13 22	2 25 23
14	29 9	3 7 18	3 19 08	4 0 57	4 12 45	4 24 37	5 6 36	5 18 47
21	7 10	6 1 14	6 14 02	6 27 16	7 10 59	7 25 12	8 9 51	8 24 53
28	14 10	9 10 08	9 25 25	10 10 34	10 25 26	11 9 54	11 23 56	0 7 32
Feb. 4	21 10	0 20 42	1 3 31	1 16 02	1 28 19	2 10 24	2 22 22	3 4 15
11	28 10	3 16 05	3 27 55	4 9 45	4 21 33	5 3 37	5 15 43	5 28 01
18	5 11	6 10 32	6 23 21	7 6 31	7 20 05	8 4 04	8 18 27	9 3 12
25	12 11	9 18 13	10 3 22	10 18 29	11 3 25	11 18 03	0 2 17	0 16 04
Mar. 4	19 11	0 29 24	1 12 19	1 24 53	2 7 10	2 19 13	3 1 07	3 12 56
11	26 11	3 24 45	4 6 35	4 18 30	5 0 31	5 12 42	5 25 03	6 7 35
18	4 12	6 20 21	7 3 21	7 16 37	8 0 10	8 14 00	8 28 09	9 12 33
25	11 12	9 27 10	10 11 56	10 26 41	11 11 27	11 25 58	0 10 11	0 24 02
Apr. 1	18 12	1 7 28	1 20 29	2 3 07	2 15 27	2 27 34	3 9 25	3 21 14
8	25 12	4 3 03	4 14 56	4 26 56	5 9 07	5 21 31	6 4 10	6 17 03
15	1 1	7 0 11	7 13 31	7 27 05	8 10 49	8 24 43	9 8 46	9 22 56
22	8 1	10 7 13	10 21 34	11 5 56	11 20 14	0 4 25	0 18 22	1 2 03
29	15 1	1 15 24	1 28 24	2 11 02	2 23 23	3 5 28	3 17 23	3 29 12
May 6	22 1	4 11 02	4 22 56	5 5 01	5 17 20	5 29 56	6 12 51	6 26 05
13	29 1	7 9 37	7 23 23	8 7 21	8 21 27	9 5 35	9 19 45	10 3 54
20	5 2	10 18 00	11 2 03	11 16 02	11 29 55	0 13 40	0 27 15	1 10 36
27	12 2	1 23 42	2 6 31	2 19 03	3 1 19	3 13 22	3 25 16	4 7 05
June 3	19 2	4 18 54	5 0 49	5 12 35	5 25 17	6 8 00	6 21 05	7 4 35
10	26 2	7 18 27	8 2 37	8 17 01	9 1 32	9 16 03	10 0 30	10 14 48
17	2 3	10 28 56	11 12 52	11 26 38	0 10 12	0 23 35	1 6 46	1 19 46
24	9 3	2 2 32	2 15 05	2 27 25	3 9 33	3 21 31	4 3 22	4 15 09
July 1	16 3	4 26 57	5 8 52	5 20 57	6 3 19	6 16 02	6 29 10	7 12 45
8	23 3	7 26 47	8 11 12	8 25 55	9 10 48	9 25 42	10 10 30	10 25 06
15	30 3	11 9 25	11 23 27	0 7 10	0 20 35	1 3 44	1 16 38	1 29 18
22	5 4	2 11 46	2 24 04	3 6 11	3 18 10	4 0 02	4 11 49	4 23 35
29	12 4	5 5 23	5 17 18	5 29 23	6 11 44	6 24 24	7 7 29	7 21 01
Aug. 5	19 4	8 5 01	8 19 27	9 4 16	9 19 19	10 4 29	10 19 35	11 4 29
12	26 4	11 19 05	0 3 19	0 17 08	1 0 34	1 13 38	1 26 23	2 8 52
19	2 5	2 21 07	3 3 12	3 15 08	3 27 00	4 8 48	4 20 34	5 2 22
26	9 5	5 14 14	5 26 13	6 8 22	6 20 44	7 3 24	7 16 25	7 29 49
Sept. 2	16 5	8 13 39	8 27 56	9 12 35	9 27 34	10 12 44	10 27 56	11 13 01
9	23 5	11 27 50	0 12 16	0 26 17	1 9 50	1 22 57	2 5 40	2 18 04
16	30 5	3 0 13	3 12 11	3 24 02	4 5 49	4 17 36	4 29 25	5 11 19
23	6 6	5 23 19	6 5 28	6 17 47	7 0 18	7 13 03	7 26 05	8 9 25
30	13 6	8 23 06	9 7 08	9 21 30	10 6 11	10 21 06	11 6 08	11 21 08
Oct. 7	20 6	0 5 58	0 20 30	1 4 38	1 18 18	2 1 30	2 14 17	2 26 43
14	27 6	3 8 50	3 20 46	4 2 35	4 14 21	4 26 09	5 8 03	5 20 05
21	3 7	6 2 18	6 14 42	6 27 18	7 10 06	7 23 07	8 6 20	8 19 45
28	10 7	9 3 24	9 17 16	10 1 23	10 15 43	11 0 15	11 14 53	11 29 34
Nov. 4	17 7	0 14 09	0 28 31	1 12 35	1 26 14	2 9 29	2 22 19	3 4 46
11	24 7	3 16 56	3 28 52	4 10 41	4 22 28	5 4 18	5 16 17	5 28 27
18	1 8	6 10 51	6 23 32	7 6 28	7 19 38	8 3 02	8 16 37	9 0 20
25	8 8	9 14 09	9 28 05	10 12 07	10 26 13	11 10 24	11 24 38	0 8 51
Dec. 2	15 8	0 23 00	1 6 19	1 20 45	2 4 12	2 17 19	3 0 05	3 12 32
9	22 8	3 24 42	4 6 39	4 18 29	5 0 16	5 12 08	5 24 08	6 6 21
16	29 8	6 18 53	7 1 44	7 14 56	7 28 27	8 12 16	8 26 17	9 10 26
23	7 9	9 24 40	10 8 54	10 23 05	11 7 12	11 21 15	0 5 12	0 19 02
30	14 9	1 2 43	1 16 15	1 29 35	2 12 41	2 25 31	3 8 06	3 20 25
Jan. 6	21 9	4 2 32	4 14 28	4 26 17	5 8 05	5 19 56	6 1 55	6 14 08

Ayanamsa on 1st Jan. : 23° 33′ 47″

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ न	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	3	9	4 R20 20	3 R13 26	8 21s08	8 16 24	7 0 50	7 25 33	7 26 52
3	5	9	4 20 18	3 13 13	8 22 41	8 18 26	7 2 34	7 28 11	7 29 32
5	8	9	4 20 16	3 12 59	8 24 14	8 20 29	7 4 21	8 0 54	8 2 17
7	10	9	4 20 13	3 12 45	8 25 46	8 22 31	7 6 11	8 3 42	8 5 06
9	12	9	4 20 10	3 12 31	8 27 19	8 24 33	7 8 03	8 6 31	8 7 58
11	13	9	4 20 06	3 12 16	8 28 52	8 26 36	7 9 57	8 9 25	8 10 52
13	15	9	4 20 02	3 12 01	9 0 26	8 28 38	7 11 53	8 12 21	8 13 49
15	17	9	4 19 58	3 11 45	9 1 59	9 0 40	7 13 51	8 15 19	8 16 49
17	19	9	4 19 53	3 11 30	9 3 32	9 2 42	7 15 52	8 18 19	8 19 51
19	21	9	4 19 48	3 11 14	9 5◉06	9 4 44	7 17 53	8 21 22	8 22s55
21	23	9	4 19 43	3 10 58	9 6 40	9 6 47	7 19 56	8 24 28	8 26 01
23	25	9	4 19 37	3 10◉42	9 8 13	9 8 49	7 22 01	8 27 35	8 29 10
25	27	9	4 19 31	3 10 26	9 9 47	9 10 51	7 24 07	9 0 45	9 2 21
27	29	9	4 19 24	3 10 10	9 11 21	9 12 53	7 26 15	9 3 57	9 5 34
29	1	10	4 19 17	3 9 54	9 12 55	9 14 55	7 28 23	9 7 12	9 8 50
31	4	10	4 19 10	3 9 38	9 14 30	9 16 57	8 0 33	9 10 29	9 12 09
Feb. 2	6	10	4 19 03	3 9 22	9 16 04	9 18 59	8 2 43	9 13 49	9 15 30
4	8	10	4 18 55	3 9 06	9 17 38	9 21 00	8 4 55	9 17 12	9 18 55
6	10	10	4 18 47	3 8 51	9 19 12	9 23 02	8 7 07	9 20 38	9 22 22
8	12	10	4 18 39	3 8 36	9 20 47	9 25 03	8 9 20	9 24 07	9 25◉53
10	14	10	4 18 30	3 8 21	9 22 21	9 27 05	8 11 34	9 27 39	9 29 26
12	15	10	4 18 22	3 8 07	9 23 55	9 29 06	8 13 48	10 1 14	10 3 02
14	17	10	4 18 13	3 7 53	9 25 30	10 1 08	8 16 04	10 4 52	10 6 41
16	19	10	4 18 04	3 7 40	9 27 05	10 3 09	8 18 20	10 8 32	10 10 23
18	21	10	4 17 55	3 7 27	9 28 40	10 5 10	8 20 36	10 12 14	10 14 05
20	23	10	4 17 45	3 7 15	10 0 14	10 7 11	8 22 53	10 15 57	10 17r48
22	25	10	4 17 36	3 7 03	10 1 49	10 9 12	8 25 11	10 19 39	10 21 29
24	27	10	4 17 26	3 6 51	10 3 24	10 11 13	8 27 29	10 23 19	10 25 07
26	30	10	4 17 17	3 6 41	10 4 58	10 13 13	8 29 47	10 26 54	10 28 39
28	2	11	4 17◉07	3 6 31	10 6 33	10 15 14	9 2 06	11 0 21	11 2 00
Mar. 2	4	11	4 16 58	3 6 21	10 8 08	10 17 15	9 4 26	11 3 36	11 5 08
4	6	11	4 16 48	3 6 10	10 9 43	10 19 15	9 6 46	11 6 35	11 7 56
6	8	11	4 16 38	3 6 05	10 11 17	10 21 15	9 9 06	11 9 12	11 10 22
8	10	11	4 16 29	3 5 58	10 12 52	10 23 15	9 11 26	11 11 24	11 12 20
10	12	11	4 16 19	3 5 51	10 14 26	10 25 15	9 13 47	11 13 07	11 13 46
12	14	11	4 16 10	3 5 45	10 16 01	10 27 15	9 16 08	11 14 17	11 14 39
14	16	11	4 16 01	3 5 40	10 17 35	10 29 15	9 18 29	11 14 53	11 R14 57
16	17	11	4 15 52	3 5 36	10 19 10	11 1 14	9 20 50	11 14 54	11 14 42
18	19	11	4 15 43	3 5 33	10 20 44	11 3 14	9 23 12	11 14s22	11 13 54
20	21	11	4 15 34	3 5 30	10 22 18	11 5 13	9 25 34	11 13 21	11 12 41
22	24	11	4 15 25	3 5 28	10 23 53	11 7 12	9 27 57	11 11 57	11 11 08
24	26	11	4 15 17	3 5 27	10 25 27	11 9 11	10 0 19	11 10◉17	11 9 25
26	28	11	4 15 08	3 D5 26	10 27 01	11 11 10	10 2 42	11 8 31	11 7 39
28	30	11	4 15 00	3 5 27	10 28 35	11 13 09	10 5 05	11 6 48	11 6 00
30	3	12	4 14 53	3 5 28	11 0 09	11 15 08	10 7 28	11 5 14	11 4 33
Apr. 1	5	12	4 14 45	3 5 30	11 1 43	11 17 06	10 9 51	11 3 57	11 3r25
3	7	12	4 14 38	3 5 32	11 3 17	11 19 05	10 12 14	11 2 59	11 2 39
5	9	12	4 14 31	3 5 36	11 4 50	11 21 04	10 14 38	11 2 23	11 2 14
7	10	12	4 14 25	3 5 40	11 6 24	11 23 01	10 17 01	11 D2 10	11 2 11
9	12	12	4 14 18	3 5 45	11 7 57	11 24 59	10 19 25	11 2 18	11 2 30
11	14	12	4 14 13	3 5 51	11 9 30	11 26 57	10 21 49	11 2 47	11 3 09
13	16	12	4 14 07	3 5 57	11 11 04	11 28 55	10 24 13	11 3 35	11 4 06
15	18	12	4 14 02	3 6 04	11 12 37	0 0 52	10 26 37	11 4 41	11 5 19
17	20	12	4 13 57	3 6 12	11 14 09	0 2 50	10 29 01	11 6 02	11 6 48

1979 A.D.

Longitudes of Planets

CONDENSED

Ayanamsa on 1st Jan. : 23° 33′ 47″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			♄			♃			♂			☉			♀			☿			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr. 17	20	12	4	R13	57	3	6	12	11	14s	09	0	2	50	10	29	01	11	6	02	11	6	48
19	22	12	4	13	53	3	6	20	11	15	42	0	4	47	11	1	25	11	7	38	11	8	30
21	24	12	4	13	49	3	6	29	11	17	15	0	6	44	11	3	49	11	9	26	11	10	25
23	27	12	4	13	45	3	6	39	11	18	47	0	8	41	11	6	14	11	11	27	11	12	31
25	29	12	4	13	42	3	6	49	11	20	19	0	10	38	11	8	38	11	13	38	11	14	48
27	1	1	4	13	39	3	7	00	11	21	52	0	12	35	11	11	03	11	16	00	11	17	14
29	3	1	4	13	36	3	7	12	11	23r	23	0	14	32	11	13	28	11	18	31	11	19	50
May 1	5	1	4	13	34	3	7	24	11	24	55	0	16	28	11	15	52	11	21	11	11	22	34
3	7	1	4	13	33	3	7	37	11	26	27	0	18	25	11	18	17	11	24	00	11	25	27
5	9	1	4	13	32	3	7	50	11	27	58	0	20	21	11	20	42	11	26	56	11	28	28
7	11	1	4	13	31	3	8	04	11	29	30	0	22	17	11	23	07	0	0	01	0	1	36
9	12	1	4	D13	31	3	8	18	0	01	01	0	24	13	11	25	32	0	3	14	0	4	53
11	14	1	4	13	31	3	8	33	0	2	31	0	26	09	11	27	57	0	6	34	0	8	17
13	16	1	4	13	31	3	8	49	0	4	02	0	28	05	0	0	22	0	10	03	0	11	50
15	19	1	4	13	32	3	9	05	0	5	32	1	0	01	0	2	47	0	13	39	0	15s	30
17	21	1	4	13	33	3	9	21	0	7	03	1	1	57	0	5	12	0	17	23	0	19	19
19	23	1	4	13	35	3	9	38	0	8	33	1	3	52	0	7	37	0	21	16	0	23	15
21	25	1	4	13	37	3	9	55	0	10	03	1	5	48	0	10	02	0	25	15	0	27	18
23	27	1	4	13	40	3	10	13	0	11	32	1	7	43	0	12	28	0	29	22	1	1	28
25	29	1	4	13	43	3	10	32	0	13	02	1	9	39	0	14	53	1	3	36	1	5	44
27	2	2	4	13	46	3	10	50	0	14	31	1	11	34	0	17	18	1	7	54	1	10	05
29	3	2	4	13	50	3	11	09	0	16	00	1	13	29	0	19	44	1	12◎	16	1	14	28
31	5	2	4	13	54	3	11	29	0	17	29	1	15	24	0	22	09	1	16	40	1	18	52
June 2	7	2	4	13	59	3	11	49	0	18	58	1	17	19	0	24	35	1	21	04	1	23	14
4	9	2	4	14	04	3	12	09	0	20	26	1	19	14	0	27	01	1	25	24	1	27	33
6	11	2	4	14	09	3	12	30	0	21	54	1	21	09	0	29	26	1	29	41	2	1r	47
8	13	2	4	14	15	3	12	51	0	23	22	1	23	04	1	1	52	2	3	51	2	5	53
10	15	2	4	14	21	3	13	12	0	24	50	1	24	58	1	4	18	2	7	53	2	9	51
12	17	2	4	14	27	3	13	33	0	26	17	1	26	53	1	6	43	2	11	47	2	13	41
14	19	2	4	14	34	3	13	55	0	27	44	1	28	48	1	9	09	2	15	32	2	17	21
16	22	2	4	14	41	3	14	17	0	29	11	2	0	42	1	11	35	2	19	07	2	20	51
18	24	2	4	14	49	3	14	40	1	0	38	2	2	37	1	14	01	2	22	53	2	24	12
20	26	2	4	14	57	3	15	03	1	2	04	2	4	32	1	16	27	2	25	48	2	27	23
22	28	2	4	15	05	3	15	26	1	3	31	2	6	26	1	18	53	2	28	54	3	0	23
24	30	2	4	15	14	3	15	49	1	4	57	2	8	21	1	21	20	3	1	50	3	3	14
26	2	3	4	15	22	3	16	13	1	6	22	2	10	15	1	23	46	3	4	35	3	5	54
28	4	3	4	15	32	3	16	36	1	7	48	2	12	10	1	26	12	3	7	10	3	8	24
30	6	3	4	15	41	3	17	00	1	9	13	2	14	03	1	28	39	3	9	34	3	10	42
July 2	7	3	4	15	51	3	17	24	1	10	38	2	15	58	2	1	05	3	11	47	3	12	48
4	9	3	4	16	01	3	17	49	1	12	03	2	17	53	2	3	32	3	13	47	3	14	42
6	11	3	4	16	11	3	18	13	1	13	27	2	19	47	2	5	58	3	15	35	3	16	23
8	13	3	4	16	22	3	18	38	1	14	52	2	21	42	2	8	25	3	17	08	3	17	50
10	16	3	4	16	33	3	19	03	1	16	16	2	23	36	2	10	52	3	18	27	3	19	01
12	18	3	4	16	44	3	19	28	1	17	39	2	25	30	2	13	18	3	19	30	3	19	55
14	20	3	4	16	55	3	19	53	1	19	03	2	27	25	2	15	45	3	20	16	3	20	32
16	23	3	4	17	07	3	20	19	1	20	26	2	29	19	2	18	12	3	20	44	3	R20	51
18	25	3	4	17	18	3	20	44	1	21	49	3	1	14	2	20	39	3	20	53	3	20s	50
20	27	3	4	17	30	3	21	10	1	23	12	3	3	08	2	23	07	3	20	43	3	20	31
22	29	3	4	17	43	3	21	35	1	24	34	3	5	03	2	25	34	3	20	13	3	19	52
24	30	3	4	17	55	3	22	01	1	25	56	3	6	57	2	28	01	3	19	25	3	18	55
26	2	4	4	18	08	3	22	27	1	27	18	3	8	52	3	0	29	3	18	21	3	17	44
28	4	4	4	18	21	3	22s	53	1	28	40	3	10	47	3	2	56	3	17	03	3	16	21
30	6	4	4	18	34	3	23	19	2	0	01	3	12	41	3	5	24	3	15	37	3	14◎	53
Aug. 1	8	4	4	18	47	3	23	45	2	1	22	3	14	36	3	7	52	3	14	08	3	13	25

Ayanamsa on 1st Jan. : 23° 33′ 47″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ बृ	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	♀ 2nd day
			s ° ′	s ° ′	s ° ″	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	8	4	4 18 47	3 23s45	2 1 22	3 14 36	3 7 52	3R14 08	3 13s25
3	10	4	4 19 01	3 24 11	2 2 43	3 16 31	3 10s19	3 12 43	3 12 04
5	12	4	4 19 14	3 24 38	2 4 03	3 18 26	3 12 47	3 11 28	3 10 56
7	14	4	4 19 28	3 25 04	2 5 23	3 20 21	3 15 15	3 10 28	3 10r06
9	17	4	4 19 42	3 25 30	2 6 43	3 22 16	3 17 43	3 9 49	3 9 39
11	19	4	4 19 56	3 25 56	2 8 03	3 24 11	3 20 11	3D9 35	3 9 48
13	21	4	4 20 10	3 26◎23	2 9 22	3 26 06	3 22 39	3 9 48	3 10 05
15	23	4	4 20 24	3 26 49	2 10 41	3 28 01	3 25 07	3 10 30	3 11 01
17	25	4	4 20 38	3 27 15	2 12 00	3 29 56	3 27 36	3 11 39	3 12 25
19	27	4	4 20 53	3 27 42	2 13 19	4 1 52	4 0 04	3 13 17	3 14 16
21	29	4	4 21 08	3 28 08	2 14 37	4 3 47	4 2 33	3 15 22	3 16 34
23	1	5	4 21s22	3 28 34	2 15 54	4 5 43	4 5 01	3 17 51	3 19 14
25	3	5	4 21 37	3 29r00	2 17 12	4 7 39	4 7◎30	3 20 43	3 22 16
27	4	5	4 21 52	3 29 27	2 18 29	4 9 34	4 9 59	3 23 53	3 25 34
29	6	5	4 22 07	3 29 53	2 19 46	4 11 30	4 12 27	3 27 19	3 29 07
31	8	5	4 22 21	4 0 19	2 21 02	4 13 26	4 14 56	4 0 57	4 2 49
Sept. 2	10	5	4 22 36	4 0 44	2 22 19	4 15 22	4 17 25	4 4s42	4 6 37
4	13	5	4 22 51	4 1 10	2 23 34	4 17 19	4 19 54	4 8 33	4 10 29
6	15	5	4 23 06	4 1 36	2 24 50	4 19 15	4 22 23	4 12 25	4 14 22
8	17	5	4 23 21	4 2 01	2 26 05	4 21 11	4 24 52	4 16 18	4 18 14
10	20	5	4 23◎37	4 2 27	2 27 20	4 23 08	4 27 21	4 20 09	4 22 04
12	22	5	4 23 52	4 2 52	2 28 34	4 25 04	4 29 50	4 23 57	4 25◎50
14	24	5	4 24 07	4 3 17	2 29 49	4 27 01	5 2 19	4 27 42	4 29 34
16	26	5	4 24 22	4 3 42	3 1 02	4 28 58	5 4 48	5 1 24	5 3 13
18	27	5	4 24 37	4 4 07	3 2 16	5 0 55	5 7 17	5 5 01	5 6 48
20	29	5	4 24 52	4 4 32	3 3 29	5 2 52	5 9 47	5 8 34	5 10 19
22	1	6	4 25 07	4 4 56	3 4 41	5 4 50	5 12r16	5 12 03	5 13 46
24	3	6	4 25r22	4 5 21	3 5 54	5 6 47	5 14 45	5 15 28	5 17 09
26	5	6	4 25 36	4 5 45	3 7 05	5 8 45	5 17 15	5 18 49	5 20 28
28	7	6	4 25 51	4 6 09	3 8 17	5 10 42	5 19 44	5 22 06	5 23 44
30	9	6	4 26 06	4 6 32	3 9 28	5 12 40	5 22 13	5 25 20	5 26 56
Oct. 2	11	6	4 26 20	4 6 56	3 10 38	5 14 38	5 24 43	5 28 30	6 0r04
4	13	6	4 26 35	4 7 19	3 11 48	5 16 36	5 27 12	6 1 37	6 3 09
6	16	6	4 26 49	4 7 42	3 12 58	5 18 34	5 29 42	6 4 40	6 6 11
8	18	6	4 27 04	4 8 04	3 14 07	5 20 33	6 2 11	6 7 41	6 9 10
10	20	6	4 27 18	4 8 27	3 15 16	5 22 31	6 4 40	6 10 38	6 12 05
12	22	6	4 27 32	4 8 48	3 16 24	5 24 30	6 7 10	6 13 31	6 14 57
14	24	6	4 27 46	4 9 10	3 17 32	5 26 28	6 9 39	6 16 22	6 17 45
16	26	6	4 27 59	4 9 31	3 18 39	5 28 27	6 12 09	6 19 08	6 20 30
18	28	6	4 28 13	4 9 52	3 19 45	6 0 26	6 14 38	6 21 51	6 23 11
20	29	6	4 28 27	4 10 13	3 20 51	6 2 26	6 17 08	6 24 29	6 25 47
22	1	7	4 28 40	4 10 33	3 21 57	6 4 25	6 19 37	6 27 03	6 28 18
24	3	7	4 28 53	4 10 53	3 23 02	6 6 24	6 22 07	6 29 31	7 0 42
26	5	7	4 29 06	4 11 13	3 24 06	6 8 24	6 24 36	7 1 52	7 3 00
28	7	7	4 29 18	4 11 32	3 25 10	6 10 24	6 27 06	7 4 05	7 5 08
30	10	7	4 29 31	4 11 50	3 26 13	6 12 24	6 29 35	7 6 08	7 7 06
Nov. 1	12	7	4 29 43	4 12 08	3 27 15	6 14 24	7 2 05	7 7 59	7 8 50
3	14	7	4 29 55	4 12 26	3 28 17	6 16 24	7 4 34	7 9 35	7 10 17
5	16	7	5 0 07	4 12 43	3 29 17	6 18 24	7 7 03	7 10 59	7 11 23
7	18	7	5 0 18	4 13 00	4 0 18	6 20 24	7 9 33	7 11 47	7 12 04
9	20	7	5 0 30	4 13 16	4 1 17	6 22 24	7 12 02	7R12 13	7 12 13
11	22	7	5 0 41	4 13 32	4 2 15	6 24 25	7 14 32	7 12 05	7 11 47
13	24	7	5 0 51	4 13 47	4 3 13	6 26 26	7 17 01	7 11s19	7 10 41
15	26	7	5 1 02	4 14 02	4 4 10	6 28 27	7 19 30	7 9 53	7 8 55

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ बृ	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	26	7	5 1 02	4 14 02	4 4 10	6 28 27	7 19 30	7R 9 53	7 8s55
17	28	7	5 1 12	4 14 16	4 5 6	7 0 27	7 22 00	7 7 49	7 6 36
19	30	7	5 1 22	4 14 30	4 6 01	7 2 29	7 24 29	7 5 17	7 3☌56
21	2	8	5 1 31	4 14 43	4 6 55	7 4 30	7 26 58	7 2 35	7 1 17
23	4	8	5 1 40	4 14 55	4 7 48	7 6 31	7 29 28	7 0 04	6 28 58
25	6	8	5 1 49	4 15 07	4 8 40	7 8 32	8 1 57	6 28r01	6 27 15
27	8	8	5 1 58	4 15 18	4 9 31	7 10 34	8 4 26	6 26 41	6 26 18
29	10	8	5 2 06	4 15 28	4 10 21	7 12 35	8 6 56	6D26 07	6 26 06
Dec. 1	13	8	5 2 14	4 15 38	4 11 09	7 14 37	8 9 25	6 26 16	6 26 36
3	15	8	5 2 21	4 15 47	4 11 56	7 16 38	8 11 54	6 27 04	6 27 41
5	17	8	5 2 28	4 15 56	4 12 42	7 18 40	8 14 23	6 28 24	6 29 13
7	19	8	5 2 35	4 16 03	4 13 27	7 20 42	8 16 52	7 0 08	7 1 08
9	21	8	5 2 41	4 16 10	4 14 10	7 22 43	8 19 21	7 2 12	7 3 19
11	22	8	5 2 47	4 16 17	4 14 52	7 24 45	8 21 50	7 4 30	7 5 43
13	24	8	5 2 53	4 16 22	4 15 32	7 26 47	8 24 19	7 6 59	7 8 16
15	26	8	5 2 58	4 16 27	4 16 11	7 28 49	8 26 48	7 9 36	7 10 57
17	28	8	5 3 03	4 16 31	4 16 48	8 0 52	8 29 16	7 12 19	7 13 43
19	30	8	5 3 07	4 16 35	4 17 23	8 2 54	9 1 45	7 15 07	7 16 33
21	2	9	5 3 11	4 16 37	4 17 57	8 4 56	9 4 14	7 17 59	7 19 26
23	4	9	5 3 14	4 16 39	4 18 28	8 6 58	9 6 42	7 20 54	7 22 22
25	7	9	5 3 17	4R16 40	4 18 57	8 9 00	9 9 11	7 23 51	7 25 20
27	9	9	5 3 20	4 16 40	4 19 25	8 11 03	9 11 39	7 26 49	7 28 19
29	11	9	5 3 22	4 16 40	4 19 50	8 13 05	9 14 07	7 29 50	8 1 20
31	13	9	5 3 24	4 16 38	4 20 13	8 15 07	9 16 35	8 2 51	8 4s23
Jan. 2	15	9	5 3 25	4 16 36	4 20 34	8 17 10	9 19 03	8 5 55	8 7 27

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	4 26 38	4 27 40	6 26 08	7 25 16	5 25 31	23 33 47
February	1	4 24 21	4 26 01	6 27 11	7 26 15	5R 25 38	23 33 51
March	1	4 23 57	4 24 32	6R 27 26	7 26 48	5 25 16	23 33 54
April	1	4 23 57	4 22 54	6 26 54	7R 26 55	5 24 29	23 33 56
May	1	4 22 42	4 21 18	6 25 48	7 26 32	5 23 40	23 33 59
June	1	4 19 46	4 19 40	6 24 32	7 25 49	5 23 02	23 34 04
July	1	4 16 45	4 18 04	6 23 37	7 25 02	5D 22 51	23 34 08
August	1	4 15 05	4 16 26	6D 23 22	7 24 23	5 23 12	23 34 13
September	1	4 14 53	4 14 47	6 23 55	7D 24 09	5 24 00	23 34 16
October	1	4 14 46	4 13 12	6 25 09	7 24 25	5 25 05	23 34 19
November	1	4 13 03	4 11 33	6 26 54	7 25 10	5 26 19	23 34 22
December	1	4 9 46	4 9 58	6 28 46	7 26 12	5 27 21	23 34 26
January	1	4 6 42	4 8 19	7 0 28	7 27 21	5 28 03	23 34 31

Combustion or Heliacal Setting of Planets

Saturn :	From Aug. 23 to Sept. 24.
Jupiter :	From July 29 to Aug. 24.
Mars :	Upto Apr. 29.
Venus :	From Aug. 3 to Sept. 26.
Mercury :	From Jan. 20 to Feb. 21, Mar. 18 to Apr. 2, May 16 to June 7, July 19 to Aug. 8, Sept. 2 to Oct. 3 and Nov. 13 to Nov. 25.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Mar. 15,	6	51	11	14	57	Apr. 7.	10	55	11	2	10
	July. 17,	28	10	3	20	53	Aug. 11.	6	55	3	9	35
	Nov. 9,	19	18	7	12	13	Nov. 29.	18	16	6	26	06.
Venus	—	—		—			—	—		—		
Mars	—	—		—			—	—		—		
Jupiter	('78 Nov. 25,	26	01	3	15	30	Mar. 26.	6	13	3	5	26
	Dec. 26,	20	37	4	16	40	('80) Apr. 26,	14	24	4	6	43
Saturn	('78) Dec. 24,	26	45	4	20	23	May 9,	19	51	4	13	31
Uranus	Feb. 24,	17	07	6	27	26	July 26,	16	19	6	23	21
Neptune	Mar. 23,	13	29	7	26	56	Aug. 30,	15	19	7	24	09
Pluto	Jan. 21,	27	18	5	25	40	June 27,	7	25	5	22	51

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
		—		—		Jan.	13	12	39	Māgha	Vadi
Jan.	28	11	50	Māgha	Sukla	Feb.	12	8	09	Phālguna	,,
Feb.	26	22	15	Phālguna	,,	Mar.	13	26	44	Caitra	,,
Mar.	28	8	30	Caitra	,,	Apr.	12	18	45	Vaiśakha	,,
Apr.	26	18	45	Vaiśakha	,,	May	12	7	31	Jyaiṣṭha	,,
May	26	5	30	Jyaiṣṭha	,,	June	10	17	25	Āṣaḍha	,,
June	24	17	28	Āṣāḍha	,,	July	9	25	29	Śrāvaṇa	,,
July	24	7	11	Śravaṇa	,,	Aug.	8	8	51	Bhādra	,,
Aug.	22	22	41	Bhādra	,,	Sept.	6	16	29	Āśvina	,,
Sept.	21	15	17	Āśvina	,,	Oct.	5	25	05	Kārtika	,,
Oct.	21	7	53	Kārtika	,,	Nov.	4	11	17	Agrahā	,,
Nov.	19	23	34	Marga	,,	Dec.	3	28	38	Pauṣa	,,
Dec.	19	13	53	Pauṣa	,,			—		—	

Sun's entry into Nirayana Signs

			d	h	m				d	h	
Makara	on	Jan.	14	13	46	Karkaṭa	on	July	16	22	39
Kumbha	on	Feb.	12	26	44	Simha	on	Aug.	17	7	02
Mina	on	Mar.	14	23	38	Kanyā	on	Sept.	17	6	56
Meṣa	on	Apr.	14	8	10	Tulā	on	Oct.	17	18	51
Vṛṣa	on	May	14	29	06	Vṛścika	on	Nov.	16	18	37
Mithuna	on	June	15	11	45	Dhanus	on	Dec.	16	9	14

1980 A.D. Longitude of Moon CONDENSED

Saka era 1901-02, Saṁvat 2036-37 (Mar. 17, Nov. 8), B. S. 1386-87 (Apr. 14), Kollam era 1155-56 (Aug. 16), 54 Raudra (Mar. 17, Apr. 13).

Date	Beng. Date		*Nirayana* Long. of Moon (স্ফুট) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Dec.30	14	9	1	2	48	1	16	15	1	29	35	2	12	41	2	25	31	3	8	06	3	20	25
Jan. 6	21	9	4	2	32	4	14	28	4	26	17	5	8	05	5	19	56	6	1	55	6	14	08
13	28	9	6	24	39	7	9	32	7	22	49	8	6	31	8	20	35	9	4	58	9	19	33
20	5	10	10	4	15	10	18	56	11	3	30	11	17	53	0	2	02	0	15	57	0	29	36
27	12	10	1	12	59	1	26	09	2	9	05	2	21	47	3	4	17	3	16	36	3	28	44
Feb. 3	19	10	4	10	44	4	22	37	5	4	25	5	16	13	5	28	05	6	10	03	6	22	14
10	26	10	7	4	41	7	17	28	8	0	41	8	14	20	8	28	25	9	12	55	9	27	44
17	4	11	10	12	46	10	27	50	11	12	50	11	27	36	0	12	03	0	26	08	1	9	50
24	11	11	1	23	09	2	6	07	2	18	48	3	1	13	3	13	27	3	25	31	4	7	28
Mar. 2	18	11	4	19	21	5	1	10	5	12	59	5	24	50	6	6	44	6	18	45	7	0	57
9	25	11	7	13	22	7	26	05	8	9	10	8	22	39	9	6	34	9	20	56	10	5	41
16	2	12	10	20	45	11	5	59	11	21	13	0	6	17	0	21	02	1	5	22	1	19	14
23	9	12	2	2	38	2	15	35	2	28	12	3	10	30	3	22	35	4	4	31	4	16	21
30	16	12	4	28	09	5	9	58	5	21	49	6	3	45	6	15	47	6	27	56	7	10	15
Apr. 6	23	12	7	22	46	8	5	30	8	18	32	9	1	53	9	15	37	9	29	45	10	14	16
13	30	12	10	29	07	11	14	12	11	29	22	0	14	28	0	29	19	1	13	48	1	27	48
20	7	1	2	11	20	2	24	23	3	7	01	3	19	19	4	1	21	4	13	14	4	25	03
27	14	1	5	6	50	5	18	41	6	0	37	6	12	41	6	24	54	7	7	16	7	19	49
May 4	21	1	8	2	33	8	15	28	8	28	37	9	12	00	9	25	39	10	9	37	10	23	52
11	28	1	11	8	25	11	23	10	0	8	02	0	22	53	1	7	34	1	21	56	2	5	55
18	4	2	2	19	58	3	2	33	3	15	14	3	27	34	4	9	39	4	21	33	5	3	23
25	11	2	5	15	12	5	27	06	6	9	08	6	21	21	7	3	46	7	16	24	7	29	15
June 1	18	2	8	12	18	8	25	32	9	8	57	9	22	33	10	6	20	10	20	16	11	4	25
8	25	2	11	18	42	0	3	07	0	17	35	1	2	00	1	16	18	2	0	22	2	14	07
15	1	3	2	27	30	3	10	31	3	23	10	4	5	31	4	17	57	4	29	32	5	11	24
22	8	3	5	23	15	6	5	12	6	17	18	6	29	37	7	12	12	7	25	04	8	8	12
29	15	3	8	21	36	9	5	14	9	19	03	10	3	01	10	17	06	11	1	11	11	15	25
July 6	22	3	11	29	37	0	13	48	0	27	54	1	11	55	1	25	45	2	9	23	2	22	46
13	29	3	3	5	51	3	18	40	4	1	11	4	13	27	4	25	31	5	7	26	5	19	19
20	4	4	6	1	11	6	13	03	6	25	15	7	7	37	7	20	16	8	3	15	8	16	36
27	11	4	9	0	17	9	14	17	9	28	31	10	12	56	10	27	25	11	11	55	11	26	20
Aug. 3	18	4	0	10	37	0	24	44	1	8	38	1	22	18	2	5	45	2	18	58	3	1	56
10	25	4	3	14	41	3	27	12	4	9	32	4	21	40	5	3	40	5	15	34	5	27	24
17	32	4	6	9	16	6	21	12	7	3	18	7	15	37	7	28	15	8	11	14	8	24	37
24	7	5	9	8	26	9	22	39	10	7	12	10	22	00	11	6	56	11	21	50	0	6	37
31	14	5	0	21	08	1	5	21	1	19	13	2	2	44	2	15	55	2	28	49	3	11	28
Sept. 7	21	5	3	23	54	4	6	09	4	18	16	5	0	16	5	12	11	5	24	02	6	5	52
14	28	5	6	17	44	6	29	40	7	11	44	7	24	00	8	6	33	8	19	26	9	2	44
21	4	6	9	16	29	10	0	42	10	15	20	11	0	20	11	15	33	0	0	48	0	15	55
28	11	6	1	0	45	1	15	11	1	29	10	2	12	41	2	25	48	3	8	33	3	21	00
Oct. 5	18	6	4	3	14	4	15	18	4	27	15	5	9	08	5	20	59	6	2	50	6	14	42
12	25	6	6	26	37	7	8	37	7	20	43	8	3	00	8	15	30	8	28	18	9	11	27
19	2	7	9	25	02	10	9	04	10	23	34	11	8	29	11	23	41	0	9	01	0	24	18
26	9	7	1	9	21	1	24	00	2	8	09	2	21	49	3	5	00	3	17	45	4	0	09
Nov. 2	16	7	4	12	18	4	24	17	5	6	09	5	17	59	5	29	50	6	11	43	6	23	40
9	23	7	7	5	42	7	17	50	8	0	06	8	12	31	8	25	07	9	7	56	9	21	03
16	30	7	10	4	31	10	18	21	11	2	35	11	17	11	0	2	07	0	17	14	1	2	22
23	7	8	1	17	21	2	2	02	2	16	17	3	0	03	3	13	20	3	26	11	4	8	40
30	14	8	4	20	51	5	2	50	5	14	42	5	26	32	6	8	24	6	20	20	7	2	23
Dec. 7	21	8	7	14	35	7	26	56	8	9	27	8	22	09	9	5	01	9	18	04	10	1	21
14	28	8	10	14	51	10	28	38	11	12	41	11	26	59	0	11	31	0	26	12	1	10	55
21	6	9	1	25	33	2	9	58	2	24	04	3	7	47	3	21	06	4	4	01	4	16	34
28	13	9	4	28	50	5	10	52	5	22	47	6	4	38	6	16	31	6	28	30	7	10	38
Jan. 4	20	9	7	22	58	8	5	31	8	18	19	9	1	21	9	14	37	9	28	04	10	11	43

Ayanamsa on 1st Jan. : 23° 34′ 31″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	*Tithi & Month*		श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	14	9	5	3	25	4R	16	37	4	20	24	8	16	05	9	17	49	8	4	03	8	5	55
3	16	9	5	3	26	4	16	35	4	20	43	8	18	11	9	20	17	8	7	27	8	8	59
5	18	9	5R	3	26	4	16	32	4	21	00	8	20	13	9	22	45	8	10	32	8	12	05
7	20	9	5	3	27	4	16	28	4	21	15	8	22	15	9	25	12	8	13	39	8	15	13
9	22	9	5	3	26	4	16	23	4	21	27	8	24	17	9	27	40	8	16	47	8	18	22
11	23	9	5	3	26	4	16	17	4	21	36	8	26	20	10	0	07	8	19	57	8	21	33
13	25	9	5	3	25	4	16	11	4	21	42	8	28	22	10	2	34	8	23	09	8	24	46
15	27	9	5	3	23	4	16	04	4R	21	46	9	0	24	10	5	01	8	26	23	8	28	00
17	30	9	5	3	21	4	15	56	4	21	46	9	2	27	10	7	28	8	29	38	9	1	17
19	2	10	5	3	19	4	15	45	4	21	43	9	4	28	10	9	54	9	2	56	9	4	35
21	4	10	5	3	16	4	15	31	4	21	38	9	6	31	10	12	2	9	6	11	9	7	56
23	6	10	5	3	13	4	15	29	4	21	29	9	8	33	10	14	46	9	9	38	9	11	20
25	8	10	5	3	08	4	15	19	4	21	16	9	10	35	10	17	12	9	13	02	9	14	45
27	11	10	5	3	05	4	15	08	4	21	01	9	12	37	10	19	38	9	16	29	9	18	13
29	13	10	5	3	00	4	14	56	4	20	43	9	14	39	10	22	03	9	19	57	9	21	42
31	14	10	5	2	56	4	14	44	4	20	21	9	16	41	10	24	28	9	23	28	9	25	14
Feb. 2	16	10	5	2	50	4	14	31	4	19	56	9	18	43	10	26	52	9	27	00	9	28	46
4	18	10	5	2	45	4	14	19	4	19	29	9	20	44	10	29	16	10	0R	32	10	2	19
6	20	10	5	2	39	4	14	01	4	18	58	9	22	46	11	1	40	10	4	04	10	5	5
8	22	10	5	2	33	4	13	50	4	18	24	9	24	48	11	4	03	10	7	34	10	9	18
10	24	10	5	2	26	4	13	36	4	17	48	9	26	49	11	6	26	10	11	00	10	12	41
12	26	10	5	2	19	4	13	21	4	17	10	9	28	51	11	8	49	10	14	19	10	15	55
14	28	10	5	2	12	4	13	06	4	16	29	10	0	52	11	11	11	10	17	27	10	18	56
16	30	10	5	2	04	4	12	51	4	15	46	10	2	5	11	13	33	10	20	20	10	21	39
18	2	11	5	1	58	4	12	36	4	15	02	10	4	54	11	15	54	10	22	53	10	24	00
20	5	11	5	1	49	4	12	20	4	14	15	10	6	56	11	18	15	10	24	58	10	25	51
22	7	11	5	1	40	4	12	01	4	13	29	10	8	57	11	20	35	10	26	35	10	27	09
24	9	11	5	1	32	4	11	49	4	12	42	10	10	57	11	22	55	10	27	31	10	27	50
26	11	11	5	1	23	4	11	33	4	11	54	10	12	5	11	25	14	10R	27	56	10	27	51
28	13	11	5	1	14	4	11	17	4	11	06	10	14	58	11	27	33	10	27	37	10	27	14
Mar. 1	15	11	5	1	05	4	11	01	4	10	19	10	16	59	11	29	50	10	26	42	10	26	03
3	17	11	5	0	56	4	10	46	4	9	33	10	18	59	0	2	08	10	25	16	10	24	24
5	19	11	5	0	47	4	10	30	4	8	48	10	21	00	0	4	24	10	23	27	10	22	25
7	20	11	5	0	38	4	10	15	4	8	04	10	23	00	0	6	40	10	21	27	10	20	26
9	22	11	5	0	28	4	10	00	4	7	22	10	25	0	0	8	55	10	19	27	10	18	30
11	24	11	5	0	19	4	9	46	4	6	42	10	27	00	0	11	09	10	17	3	10	16	48
13	26	11	5	0	08	4	9	31	4	6	04	10	28	59	0	13	22	10	16R	04	10	15	27
15	28	11	5	0	00	4	9	17	4	5	29	11	0	59	0	15	34	10	14	45	10	14	29
17	1	12	4	29	50	4	9	04	4	4	56	11	2	5	0	17	46	10	14	1	10	13	57
19	3	12	4	29	41	4	8	51	4	4	27	11	4	58	0	19	56	10D	13	51	10	13	50
21	5	12	4	29	32	4	8	38	4	4	00	11	6	57	0	22	06	10	13	6	10	14	07
23	7	12	4	29	22	4	8	26	4	3	36	11	8	56	0	24	14	10	14	23	10	14	44
25	9	12	4	29	13	4	8	15	4	3	16	11	10	5	0	26	21	10	16	10	10	15	41
27	11	12	4	29	04	4	8	04	4	2	58	11	12	54	0	28	27	10	16	1	10	16	05
29	13	12	4	28	55	4	7	53	4	2	44	11	14	57	1	0	31	10	17	48	10	18	24
31	15	12	4	28	46	4	7	44	4	2	33	11	16	5	1	2	34	10	19	14	10	20	07
Apr. 2	17	12	4	28	37	4	7	31	4	2	25	11	18	50	1	4	36	10	21	03	10	22	02
4	19	12	4	28	29	4	7	26	4	2	20	11	20	48	1	6	36	10	23	04	10	24	09
6	20	12	4	28	21	4	7	18	4D	2	18	11	22	46	1	8	34	10	25	15	10	26	25
8	22	12	4	28	12	4	7	11	4	2	19	11	24	44	1	10	30	10	27	36	10	28	50
10	25	12	4	28	05	4	7	05	4	2	22	11	26	42	1	12	25	11	0	06	11	1	23
12	27	12	4	27	57	4	6	59	4	2	29	11	28	39	1	14	17	11	2	43	11	4	06
14	29	12	4	27	50	4	6	54	4	2	38	0	0	37	1	16	08	11	5	29	11	6	54
16	1	1	4	27	43	4	6	50	4	2	50	0	2	35	1	17	56	11	8	21	11	9	50

***Ayanamsa* on 1st Jan. : 23° 34′ 31″**

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 16	1	1	4R27 43	4R6 50	4 2 50	0 2 35	1 17 56	11 8 21	11 9 50
18	4	1	4 27 35	4 6 46	4 3 05	0 4 32	1 19 41	11 11 21	11 12 54
20	6	1	4 27 30	4 6 43	4 3 22	0 6 29	1 21 24	11 14 28	11 16 04
22	8	1	4 27 23	4 6 41	4 3 42	0 8 26	1 23 04	11 17 41	11 19 21
24	10	1	4 27 18	4 6 40	4 4 03	0 10 23	1 24 41	11 21 02	11 22 45
26	12	1	4 27 12	4D6 40	4 4 27	0 12 20	1 26 14	11 24 29	11 26s15
28	13	1	4 27 07	4 6 40	4 4 53	0 14 17	1 27 44	11 28 03	11 29 53
30	15	1	4 27 03	4 6 41	4 5 22	0 16 13	1 29 10	0 1 44	0 3 37
May 2	17	1	4 26 58	4 6 43	4 5 52	0 18 10	2 0 31	0 5 32	0 7 29
4	19	1	4 26 54	4 6 45	4 6 24	0 20 06	2 1 48	0 9 27	0 11 27
6	21	1	4 26 51	4 6 48	4 6 57	0 22 02	2 3 00	0 13 29	0 15 32
8	23	1	4 26 48	4 6 52	4 7 33	0 23 58	2 4 07	0 17 37	0 19 43
10	25	1	4 26 45	4 6 57	4 8 10	0 25 54	2 5 08	0 21 50	0 23 59
12	28	1	4 26 43	4 7 02	4 8 48	0 27 50	2 6 03	0 26 09	0 28 19
14	30	1	4 26 41	4 7 08	4 9 29	0 29 46	2 6 52	1 0 30	1 2 41
16	2	2	4 26 39	4 7 15	4 10 10	1 1 42	2 7 33	1 4 52	1 7 03
18	4	2	4 26 38	4 7 22	4 10 53	1 3 37	2 8 07	1 9 13	1 11 23
20	6	2	4 26 37	4 7 30	4 11 38	1 5 33	2 8 33	1 13 31	1 15r38
22	8	2	4D26 37	4 7 38	4 12 24	1 7 28	2 8 51	1 17 43	1 19 47
24	10	2	4 26 37	4 7 48	4 13 11	1 9 24	2R9 00	1 21 49	1 23 48
26	12	2	4 26 37	4 7 59	4 13 59	1 11 19	2 8 59	1 25 45	1 27 40
28	14	2	4 26 38	4 8 08	4 14 48	1 13 14	2 8 48	1 29 32	2 1 21
30	16	2	4 26 40	4 8 19	3 15 38	1 15 09	2 8 23	2 3 08	2 4 52
June 1	18	2	4 26 41	4 8 31	3 16 30	1 17 04	2 7 59	2 6 33	2 8 11
3	20	2	4 26 44	4 8 43	4 17 22	1 18 59	2 7 19	2 9 47	2 11 19
5	22	2	4 26 46	4 8 56	4 18 16	1 20 54	2 6 32	2 12 49	2 14 15
7	24	2	4 26 49	4 9 09	4 19 10	1 22 49	2 5 36	2 15 39	2 17 00
9	26	2	4 26 52	4 9 23	4 20 05	1 24 44	2 4 32	2 18 17	2 19 32
11	28	2	4 26 56	4 9 38	4 21 01	1 26 38	2 3s24	2 20 43	2 21 51
13	1	2	4 27 00	4 9 53	4 21 59	1 28 33	2 2 12	2 22 56	2 23 57
15	3	2	4 27 05	4 10 08	4 22 56	2 0 28	2 0 57	2 24 55	2 25 50
17	5	2	4 27 10	4 10 24	4 23 55	2 2 22	1 29 42	2 26 40	2 27 28
19	7	2	4 27 15	4 10 40	4 24 55	2 4 17	1 28 29	2 28 11	2 28 50
21	8	2	4 27 21	4 10 57	4 25 55	2 6 11	1 27r18	2 29 26	2 29 57
23	10	2	4 27 27	4 11 14	4 26 56	2 8 06	1 26 14	3 0 24	3 0 46
25	12	2	4 27 33	4 11 32	4 26 57	2 10 00	1 25 15	3 1 05	3 1 18
27	14	2	4 27 40	4 11 50	4 29 00	2 11 55	1 24 25	3 1 27	3R1 32
29	16	2	4 27 47	4 12 09	5 0 03	2 13 49	1 23 43	3 1 32	3 1 27
July 1	18	2	4 27 54	4 12 28	5 1 06	2 15 43	1 23 10	3 1s18	3 1 04
3	20	2	4 28 02	4 12 47	5 2 11	2 17 38	1 22 46	3 0 46	3 0 24
5	23	2	4 28 10	4 13 07	5 3 15	2 19 32	1 22 33	2 29 58	2 29 29
7	25	2	4 28 19	4 13 27	5 4 21	2 21 27	1D22 28	2 28 57	2 28 23
9	27	2	4 28 27	4 13 47	5 5 27	2 23 21	1 22 34	2 27 47	2 27 09
11	29	2	4 28 37	4 14 08	5 6 33	2 25 15	1 22 48	2 26 30	2 25 52
13	1	3	4 28 46	4 14 29	5 7 41	2 27 10	1 23 10	2 25 14	2 24 37
15	3	3	4 28 55	4 14 50	5 8 48	2 29 04	1 23 41	2 24 02	2 23 30
17	5	3	4 29 05	4 15 12	5 9 57	3 0 59	1 24 19	2 23 01	2 22 35
19	7	3	4 29 16	4 15 34	5 11 05	3 2 53	1 25 04	2 22 14	2 21r37
21	9	3	4 29 26	4 15 56	5 12 15	3 4 48	1 25 55	2 21 45	2D21 39
23	11	3	4 29 37	4 16 19	5 13 24	3 6 42	1 26 53	2 21 38	2 21 43
25	13	3	4 29 48	4 16 41	5 14 35	3 8 37	1 27 57	2 21 53	2 22 09
27	15	3	4 29 59	4 17 01	5 15 45	3 10 32	1 29 05	2 22 32	2 23 00
29	17	3	5 0 11	4 17 28	5 16 57	3 12 26	2 0 19	2 23 35	2 24 15
31	19	3	5 0 22	4 17 51	5 18 08	3 14 21	2 1 3[illegible]	2 25 02	2 25 54

EPHEMERIS Longitudes of Planets 1980 A.D.

Ayanamsa on 1st Jan. : 23° 34' 31"

Date	*Tithi* & *Month*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	♀ 2nd day
		s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
July 31	19 3	5 0 22	4 17 51	5 18 08	3 14 21	2 1 38	2 25 02	2 25 54
Aug. 2	21 3	5 0 34	4 18 15	5 19 20	3 16 16	2 3 00	2 26 52	2 27 56
4	24 3	5 0 46	4 18 39	5 20 33	3 18 11	2 4 27	2 29 06	3 0 21
6	26 3	5 0 59	4 19 03	5 21 46	3 20 06	2 5 57	3 1 41	3 3 06
8	28 3	5 1 11	4 19 27	5 22 59	3 22 01	2 7 31	3 4 36	3 6 11
10	30 3	5 1 24	4 19 52	5 24 13	3 23 56	2 9 08	3 7 50	3 9 32
12	2 4	5 1 37	4 20 16	5 25 28	3 25 51	2 10 47	3 11 18	3 13 08
14	3 4	5 1 50	4 20 41	5 26 42	3 27 46	2 12 30	3 15 00	3 16 51
16	5 4	5 2 03	4 21 06	5 27 57	3 29 42	2 14 15	3 18s51	3 20 49
18	7 4	5 2 17	4 21 31	5 29 1[illegible]	4 1 37	2 16 04	3 22 48	3 24 4[illegible]
20	9 4	5 2 30	4 21 56	6 0 29	4 3 32	2 17 52	3 26 49	3 28 50
22	11 4	5 2 44	4 22 21	6 1 45	4 5 28	2 19 43	4 0 51	4 2 51
24	13 4	5 2 58	4 22 47	6 3 02	4 7 24	2 21 37	4 4 51	4 6 51
26	15 4	5 3 12	4 23 12	6 4 19	4 9 19	2 23 32	4 8 49	4 10 47
28	18 4	5 3 26	4 23 38	6 5 37	4 11 15	2 25 29	4 12 44	4 14 40
30	20 4	5 3 40	4 24 04	6 6 54	4 13 11	2 27 23	4 16 34	4 18 28
Sept 1	22 4	5 3 55	4 24 29	6 8 13	4 15 07	2 29 29	4 20 20	4 22 11
3	24 4	5 4 09	4 24 55	6 9 31	4 17 03	3 1 30	4 24 01	4 25 50
5	26 4	5 4 23	4 25 21	6 10 50	4 19 00	3 3 33	4 27 37	4 29 23
7	28 4	5 4 38	4 25 47	6 12 10	4 20 56	3 5 38	5 1 08	5 2 52
9	30 4	5 4 53	4 26 13	6 13 29	4 22 53	3 7 44	5 4 35	5 6 16
11	2 5	5 5 07	4 26 39	6 14 49	4 24 49	3 9 51	5 7 57	5 9r36
13	4 5	5 5 22	4 27 05	6 16 10	4 26 46	3 11 59	5 11 14	5 12 51
15	6 5	5 5 37	4 27 31	6 17 31	4 28 43	3 14 08	5 14 27	5 16 02
17	7 5	5 5 52	4 27 57	6 18 52	5 0 40	3 16 18	5 17 36	5 19 09
19	9 5	5 6 07	4 28 23	6 20 13	5 2 37	3 18 29	5 20 41	5 22 12
21	11 5	5 6 22	4 28 49	6 21 35	5 4 35	3 20 41	5 23 41	5 25 10
23	14 5	5 6 36	4 29 15	6 22 57	5 6 32	3 22 54	5 26 38	5 28 04
25	16 5	5 6 51	4 29r41	6 24 20	5 8 29	3 25 07	5 29 30	6 0 54
27	18 5	5 7 06	5 0 06	6 25 43	5 10 27	3 27 22	6 2 18	6 3 40
29	21 5	5 7 21	5 0 32	6 27 05	5 12 25	3 29 37	6 5 01	6 6 21
Oct. 1	23 5	5 7 36	5 0 58	6 28 29	5 14 23	4 1 53	6 7 39	6 8 56
3	25 5	5 7 51	5 1 23	6 29 53	5 16 21	4 4 16	6 10 12	6 11 27
5	27 5	5 8 06	5 1 49	7 1 17	5 18 19	4 6 27	6 12 39	6 13 51
7	29 5	5 8r20	5 2 14	7 2 41	5 20 17	4 8 46	6 15 00	6 16 07
9	30 5	5 8 35	5 2 40	7 4 06	5 22 16	4 11 04	6 17 13	6 18 16
11	2 6	5 8 49	5 3 05	7 5 31	5 24 15	4 13 24	6 19 17	6 20 15
13	4 6	5 9 04	5 3 30	7 6 56	5 26 13	4 15 44	6 21 10	6 22 02
15	6 6	5 9 18	5 3 55	7 8 22	5 28 12	4 18 04	6 22 50	6 23 34
17	8 6	5 9 33	5 4 19	7 9 48	6 0 11	4 20 25	6 24 15	6 24 50
19	10 6	5 9 47	5 4 44	7 11 14	6 2 11	4 22 46	6 25 21	6 25 45
21	12 6	5 10 01	5 5 08	7 12 40	6 4 10	4 25 08	6 26 04	6 26 13
23	14 6	5 10 15	5 5 32	7 14 07	6 6 09	4 27 31	6R26 20	6 26 17
25	17 6	5 10 29	5 5 56	7 15 34	6 8 09	4 29 54	6 26s05	6 25 45
27	19 6	5 10 43	5 6 20	7 17 02	6 10 08	5 2 17	6 25 15	6 24 36
29	21 6	5 10 56	5 6 43	7 18 29	6 12 08	5 4 41	6 23 48	6 22 51
31	23 6	5 11 09	5 7 07	7 19 57	6 14 08	5 7 05	6 21 47	6 20 37
Nov. 2	25 6	5 11 23	5 7 30	7 21 25	6 16 08	5 9 30	6 19 21	6 18 03
4	27 6	5 11 36	5 7 52	7 22 54	6 18 08	5 11 55	6 16 45	6 15 29
6	29 6	5 11 49	5 8 15	7 24 23	6 20 09	5 14 20	6 14 18	6 13 14
8	1 7	5 12 01	5 8 37	7 25 52	6 22 09	5 16 45	6 12r18	6 11 33
10	2 7	5 12 14	5 8 59	7 27 21	6 24 10	5 19 11	6 10 59	6 10 36
12	4 7	5 12 26	5 9 20	7 28 50	6 26 11	5 21 37	6D10 25	6 10 26
14	6 7	5 12 38	5 9 42	8 0 20	6 28 11	5 24 04	6 10 37	6 10 58

1980 A.D. Longitudes of Planets CONDENSED

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I S T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☽ 2nd day
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov 14	6	7	5 12 39	5 9 42	8 0 20	6 28 11	5 24 04	6 10 37	6 10 58
16	8	7	5 12 50	5 10 02	8 1 50	7 0 12	5 26 31	6 11 49	6 12 08
18	11	7	5 13 01	5 10 23	8 3 20	7 2 13	5 28 55	6 12 54	6 13 48
20	13	7	5 13 12	5 10 43	8 4 51	7 4 14	6 1 25	6 14 46	6 15 50
22	15	7	5 13 23	5 11 03	8 6 22	7 6 16	6 3 52	6 16 59	6 18 11
24	17	7	5 13 34	5 11 22	8 7 52	7 8 17	6 6 20	6 19 26	6 20 44
26	20	7	5 13 45	5 11 41	8 9 24	7 10 18	6 8 45	6 22 05	6 23 27
28	22	7	5 13 55	5 12 00	8 10 55	7 12 20	6 11 16	6 24 51	6 26 17
30	24	7	5 14 05	5 12 19	8 12 26	7 14 21	6 13 44	6 27 41	6 29 12
Dec. 2	25	7	5 14 11	5 12 35	8 13 58	7 16 23	6 16 13	7 0 40	7 2 10
4	27	7	5 14 23	5 12 53	8 15 30	7 18 25	6 18 41	7 3 40	7 5 09
6	29	7	5 14 32	5 13 09	8 17 02	7 20 26	6 21 10	7 6 41	7 8 12
8	1	8	5 14 41	5 13 25	8 18 35	7 22 28	6 23 39	7 9 44	7 11 15
10	3	8	5 14 49	5 13 41	8 20 07	7 24 30	6 26 08	7 12 47	7 14 19
12	5	8	5 14 57	5 13 56	8 21 40	7 26 32	6 28 37	7 15 52	7 17 24
14	7	8	5 15 04	5 14 11	8 23 13	7 28 34	7 1 06	7 18 57	7 20 30
16	9	8	5 15 12	5 14 25	8 24 46	8 0 36	7 3 36	7 22 03	7 23 36
18	11	8	5 15 19	5 14 38	8 26 19	8 2 38	7 6 05	7 25 09	7 26 42
20	14	8	5 15 25	5 14 51	8 27 52	8 4 41	7 8 34	7 28 16	7 29 49
22	16	8	5 15 31	5 15 03	8 29 26	8 6 43	7 11 04	8 1 23	8 2 57
24	18	8	5 15 36	5 15 15	9 0 59	8 8 45	7 13 34	8 4 31	8 6 06
26	20	8	5 15 42	5 15 26	9 2 33	8 10 47	7 16 04	8 7 41	8 9 15
28	22	8	5 15 46	5 15 36	9 4 07	8 12 49	7 18 33	8 10 51	8 12 26
30	24	8	5 15 51	5 15 46	9 5 41	8 14 52	7 21 03	8 14 02	8 15 33
Jan. 1	25	8	5 15 55	5 15 55	9 7 15	8 16 54	7 23 33	8 17 14	8 18 51

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January	1	4 6 42	4 8 19	7 0 28	7 27 21	5 28 03	23 34 31
February	1	4 5 36	4 6 41	7 1 38	7 28 21	5R 28 11	23 34 3
March	1	4 5 40	4 5 05	7R 2 00	7 28 57	5 27 50	23 34 39
April	1	4 4 59	4 3 30	7 1 34	7R 29 05	5 27 05	23 34 41
May	1	4 2 35	4 1 54	7 0 32	7 28 44	5 26 15	23 34 41
June	1	3 29 16	4 0 16	6 29 15	7 28 01	5 25 36	23 34 49
July	1	3 27 04	3 28 41	6 28 17	7 27 13	5D 25 23	23 34 54
August	1	3 26 29	3 27 02	6D 27 55	7 26 34	5 25 42	23 34 58
September	1	3 26 31	3 25 23	6 28 22	7D 26 19	5 26 29	23 35 02
October	1	3 25 34	3 23 48	6 29 31	7 26 34	5 27 53	23 35 04
November	1	3 22 42	3 22 09	7 1 14	7 27 17	5 28 47	23 35 07
December	1	3 19 21	3 20 34	7 3 04	7 28 13	5 29 50	23 35 12
January	1	3 17 27	3 18 55	7 4 49	7 29 28	6 0 31	23 35 17

Combustion or Heliacal Setting of Planets

Saturn	:	From Sept. 4 to Oct. 7.
Jupiter	:	From Aug. 29 to Sept. 24.
Mars	:	— —
Venus	:	From June. 11 to June 20.
Mercury	:	From Jan. 1 to Feb. 4, Feb. 29 to Mar. 13, Apr. 27 to May 21, July 1 to July 20, Aug. 16 to Sept. 12, Oct. 25 to Nov. 8 and Dec. 12 to Jan. 16 ('81).

Retrogression of Planets

PLANET	RETROGRADE					DIRECT				
	Date				Long	Date				Long.
			h	*m*	s ° ′			*h*	*m*	s ° ′
Mercury	Feb.	26,	7	07	10 27 56	Mar.	19,	19	32	10 13 50
	June.	28,	16	43	3 1 32	July.	22,	28	01	2 21 35
	Oct.	23,	7	13	6 26 20	Nov.	12,	16	31	6 10 25
Venus	May	24,	25	39	2 9 00	July	6,	26	49	1 22 28
Mars	Jan.	16	11	46	4 21 46	Apr.	6,	14	05	4 2 18
Jupiter	('79 Dec.	26,	20	37	4 16 40	Apr.	26,	14	24	4 6 40
Saturn	Jan.	6,	28	07	5 3 27	May	22,	17	06	4 26 37
Uranus	Feb.	29,	11	49	7 2 00	July	30,	15	26	6 27 55
Neptune	Mar.	24,	25	29	7 29 06	Aug.	31,	29	29	7 26 19
Pluto	Jan.	24,	21	52	5 28 12	June	28,	26	41	5 25 23

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	*h*	*m*				*d*	*h*	*m*		
						Jan.	2	14	32	Māgha	Vadi
Jan.	17	26	49	Māgha	Sukla	Feb.	1	7	51	Phālguna	,,
Feb.	16	14	21	Phālguna	,,	Mar.	1	26	30	Caitra	,,
Mar.	16	24	26	Caitra	,,	Mar.	31	20	44	Vaiśakha	,,
Apr.	15	9	16	Vaiśākha	,,	Apr.	30	13	05	Jyaiṣṭha	,,
May	14	17	30	Jyaiṣṭha (*Mala*)	,,	May	29	26	58	Jyaiṣṭha (*Adhika*)	,,
June	12	26	08	Jyaiṣṭha	,,	June	23	14	32	Āṣāḍha	,,
July	12	12	16	Āṣāḍha	,,	July	27	24	24	Śrāvaṇa	,,
Aug.	10	24	39	Śravana	,,	Aug.	26	9	12	Bhādra	,,
Sept.	9	15	30	Bhādra	,,	Sept.	24	17	38	Āśvina	,,
Oct.	9	8	20	Āśvina	,,	Oct.	23	26	22	Kārtika	,,
Nov.	7	26	13	Kārtika	,,	Nov.	22	12	09	Agrahā.	,,
Dec.	7	20	05	Marga	,,	Dec.	21	23	38	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	14	19	53	Karkaṭa	on	July	15	28	49
Kumbha	on	Feb.	13	8	56	Simha	on	Aug.	16	13	11
Mina	on	Mar.	14	5	49	Kanyā	on	Sept.	16	13	03
Meṣa	on	Apr.	13	14	21	Tulā	on	Oct.	16	24	45
Vṛṣa	on	May	14	11	16	Vṛścika	on	Nov.	15	24	37
Mithuna	on	June	14	17	55	Dhanus	on	Dec.	15	15	13

Longitude of Moon **CONDENSED**

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Saka era 1902-03, Samvat 2037-38 (Apr. 5, Oct. 28), B. S. 1387-88 (Apr. 14),
Kollam era 1156-57 (Aug. 17), 55 Durmati (Apr. 5, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च) ५) at 5-30 A.M. I.S.T. Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec. 28	13	9	4	28	50	5	10	52	5	22	47	6	4	38	6	16	31	6	28	30	7	10	38
Jan. 4	20	9	7	22	58	8	5	31	8	18	19	9	1	21	9	14	37	9	28	04	10	11	43
11	27	9	10	25	32	11	9	29	11	23	54	0	7	45	0	21	59	1	6	14	1	20	28
18	4	10	2	4	35	2	18	32	3	2	16	3	15	43	3	28	52	4	11	42	4	24	15
25	11	10	5	6	32	5	18	37	6	0	34	6	12	26	6	24	20	7	6	19	7	18	28
Feb. 1	18	10	8	0	51	8	13	31	8	26	30	9	9	49	9	23	27	10	7	22	10	21	31
8	25	10	11	5	48	11	20	10	0	4	31	0	18	43	1	2	59	1	17	00	2	0	51
15	3	11	2	14	32	2	28	00	3	11	16	3	24	20	4	7	10	4	19	48	5	2	13
22	10	11	5	14	26	5	26	30	6	8	26	6	20	19	7	2	12	7	14	09	7	26	16
Mar. 1	17	11	8	8	36	8	21	16	9	4	17	9	17	43	10	1	35	10	15	50	11	0	24
8	24	11	11	15	10	0	0	00	0	14	47	0	29	23	1	13	43	1	27	45	2	11	28
15	1	12	2	24	53	3	8	01	3	20	55	4	3	37	4	16	08	4	28	30	5	10	43
22	8	12	5	22	49	6	4	48	6	16	43	6	28	35	7	10	27	7	22	23	8	4	27
29	15	12	8	16	44	8	29	18	9	12	15	9	25	59	10	9	32	10	23	52	11	8	38
Apr. 5	22	12	11	23	42	0	8	54	0	24	04	1	9	01	1	23	38	2	7	50	2	21	37
12	29	12	3	4	59	3	17	59	4	0	42	4	13	10	4	25	27	5	7	36	5	19	39
19	6	1	6	1	37	6	13	32	6	25	24	7	7	17	7	19	10	8	1	08	8	13	13
26	13	1	8	25	29	9	8	01	9	20	54	10	4	11	10	17	57	11	2	11	11	16	54
May 3	20	1	0	1	58	0	17	10	1	2	35	1	17	45	2	2	35	2	17	00	3	0	56
10	27	1	3	14	24	3	27	26	4	10	07	4	22	31	5	4	42	5	16	44	5	28	40
17	3	2	6	10	33	6	22	26	7	4	19	7	16	11	7	28	12	8	10	17	8	22	28
24	10	2	9	4	50	9	17	27	10	0	20	10	13	35	10	27	14	11	11	19	11	25	48
31	17	2	0	10	40	0	25	46	1	10	58	1	26	04	2	10	56	2	25	25	3	19	28
June 7	24	2	3	23	02	4	6	11	4	18	55	5	1	21	5	13	32	5	25	32	6	7	27
14	31	2	6	19	19	7	1	11	7	13	07	7	25	07	8	7	15	8	19	30	9	1	55
21	6	3	9	14	31	9	27	20	10	10	23	10	23	44	11	7	23	11	21	21	0	5	38
28	13	3	0	20	12	1	4	57	1	19	48	2	4	36	2	19	14	3	3	35	3	17	35
July 5	20	3	4	1	10	4	14	22	4	27	10	5	9	39	5	21	52	6	3	54	6	15	49
12	27	3	6	27	42	7	9	36	7	21	35	8	3	42	8	15	59	8	28	28	9	11	11
19	3	4	9	24	07	10	7	16	10	20	40	11	4	16	11	18	06	0	2	06	0	16	17
26	10	4	1	0	36	1	14	59	1	29	24	2	13	46	2	28	00	3	12	01	3	25	47
Aug. 2	17	4	4	9	14	4	22	21	5	5	09	5	17	38	5	29	53	6	11	55	6	23	51
9	24	4	7	5	43	7	17	38	7	29	39	8	11	51	8	24	16	9	6	58	9	19	58
16	31	4	10	3	16	10	16	51	11	0	41	11	14	43	11	28	52	0	13	06	0	27	20
23	6	5	1	11	33	1	25	42	2	9	45	2	23	40	3	7	27	3	21	03	4	4	27
30	13	5	4	17	37	5	0	33	5	13	13	5	25	34	6	7	50	6	19	51	7	1	46
Sept. 6	20	5	7	13	37	7	25	30	8	7	30	8	19	42	9	2	11	9	15	00	9	28	12
13	27	5	10	11	48	10	25	46	11	10	03	11	24	32	0	9	09	0	23	44	1	8	13
20	3	6	1	22	31	2	6	37	2	20	27	3	4	05	3	17	29	4	0	42	4	13	43
27	10	6	4	26	33	5	9	12	5	21	39	6	3	56	6	16	02	6	28	00	7	9	52
Oct. 4	17	6	7	21	41	8	3	31	8	15	28	8	27	37	9	10	03	9	22	52	10	6	06
11	24	6	10	19	49	11	3	59	11	18	34	0	3	27	0	18	29	1	3	29	1	18	20
18	1	7	2	2	53	2	17	07	3	0	58	3	14	29	3	27	42	4	10	39	4	23	23
25	8	7	5	5	55	5	18	17	6	0	31	6	12	37	6	24	36	7	6	30	7	18	19
Nov. 1	15	7	8	0	07	8	11	57	8	23	52	9	5	59	9	18	20	10	1	03	10	14	12
8	22	7	10	27	50	11	11	58	11	26	36	0	11	36	0	26	51	1	12	08	1	27	15
15	29	7	2	12	11	2	26	40	3	10	43	3	24	20	4	7	33	4	20	25	5	3	01
22	6	8	5	15	22	5	27	33	6	9	36	6	21	33	7	3	26	7	15	16	7	27	06
29	13	8	8	8	56	8	20	49	9	2	48	9	14	57	9	27	19	10	9	59	10	23	02
Dec. 6	20	8	11	6	30	11	20	27	0	4	52	0	19	41	1	4	49	1	20	05	2	5	21
13	27	8	2	20	24	3	5	06	3	19	24	4	3	13	4	16	36	4	29	33	5	12	09
20	4	9	5	24	28	6	6	35	6	18	32	7	0	24	7	12	13	7	24	03	8	5	55
27	11	9	8	17	51	8	29	53	9	12	03	9	24	23	10	6	55	10	19	42	11	2	47
Jan. 3	18	9	11	16	11	11	29	57	0	14	05	0	28	33	1	13	19	1	28	15	2	13	16

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	*Tithi & Month*	श ♄ नि	बृ ♃ ह	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		Nirayana Longitudes at 5-30 A.M. I.S.T.						
Jan. 1	25 8	5 15 55	5 15 55	9 7 15	8 16 54	7 23 33	8 17s 14	8 18 51
3	27 8	5 15 58	5 16 04	9 8 49	8 18 56	7 26 03	8 20 28	8 22 06
5	29 8	5 16 02	5 16 11	9 10 23	8 20 59	7 28 33	8 23 44	8 25 22
7	1 9	5 16 04	5 16 18	9 11 58	8 23 01	8 1 03	8 27 00	8 28 39
9	3 9	5 16 07	5 16 24	9 13 32	8 25 03	8 3 33	9 0 19	9 1 58
11	5 9	5 16 09	5 16 30	9 15 07	8 27 06	8 6 03	9 3 38	9 5 18
13	8 9	5 16 10	5 16 35	9 16 41	8 29 08	8 8 33	9 6 59	9 8 40
15	10 9	5 16 11	5 16 39	9 18 16	9 1 10	8 11 04	9 10 21	9 12r02
17	12 9	5R16 12	5 16 42	9 19 51	9 3 12	8 13 34	9 13 43	9 15 24
19	14 9	5 16 12	5 16 45	9 21 25	9 5 14	8 16 04	9 17 05	9 18 46
21	16 9	5 16 11	5 16 47	9 23 00	9 7 17	8 18 34	9 20 26	9 22 06
23	18 9	5 16 11	5R16 48	9 24 35	9 9 19	8 21 03	9 23 44	9 25 21
25	20 9	5 16 10	5 16 48	9 26 10	9 11 21	8 23 31	9 26 57	9 28 31
27	22 9	5 16 09	5 16 48	9 27s45	9 13 23	8 26 05	10 0 02	10 1 30
29	24 9	5 16 06	5 16 46	9 29 20	9 15 24	8 28 35	10 2 55	10 4 16
31	26 9	5 16 04	5 16 44	10 0 55	9 17 26	9 1 05	10 5 32	10 6 43
Feb. 2	28 9	5 16 01	5 16 42	10 2 30	9 19 28	9 3 35	10 7 47	10 8 44
4	30 9	5 15 57	5 16 38	10 4 05	9 21 30	9 6 05	10 9 34	10 10 15
6	2 10	5 15 51	5 16 34	10 5 39	9 23 32	9 8 36	10 10 46	10 11 06
8	4 10	5 15 50	5 16 29	10 7 14	9 25 33	9 11 06	10R11 19	10 11 19
10	6 10	5 15 45	5 16 23	10 8 49	9 27 35	9 13 36	10 11 08	10 10s47
12	8 10	5 15 41	5 16 17	10 10 24	9 29 36	9 16 06	10 10 15	10 9 34
14	10 10	5 15 35	5 16 09	10 11 59	10 1 37	9 18 36	10 8 45	10 7 48
16	13 10	5 15 30	5 16 01	10 13 34	10 3 39	9 21 06	10 6 46	10 5 41
18	15 10	5 15 24	5 15 53	10 15 08	10 5 40	9 23 36	10 4 33	10 3 25
20	17 10	5 15 18	5 15 44	10 16 43	10 7 41	9 26 06	10 2 18	10 1 15
22	18 10	5 15 11	5 15 34	10 18 18	10 9 41	9 28 36	10 0 15	9 29r21
24	20 10	5 15 04	5 15 23	10 19 52	10 11 42	10 1 06	9 28 34	9 27 53
26	22 10	5 14 57	5 15 12	10 21 27	10 13 43	10 3s36	9 27 19	9 26 53
28	24 10	5 14 50	5 15 01	10 23 01	10 15 43	10 6 06	9 26 33	9 26 21
Mar. 2	26 10	5 14 42	5 14 49	10 24 35	10 17 44	10 8 36	9D26 16	9 26 17
4	28 10	5 14 34	5 14 36	10 26 10	10 19 44	10 11 05	9 26 25	9 26 35
6	30 10	5 14 26	5 14 23	10 27 44	10 21 44	10 13 35	9 26 57	9 27 22
8	2 11	5 14 18	5 14 10	10 29 18	10 23 44	10 16 05	9 27 51	9 28 25
10	5 11	5 14 09	5 13 56	11 0 52	10 25 44	10 18 35	9 29 03	9 29 45
12	7 11	5 14 00	5 13 42	11 2 25	10 27 44	10 21 04	10 0 31	10 1 20
14	9 11	5 13 52	5 13 27	11 3 59	10 29 44	10 23 34	10 2 13	10 3 09
16	11 11	5 13 43	5 13 12	11 5 33	11 1 44	10 26 03	10 4 07	10 5 08
18	13 11	5 13 34	5 12 57	11 7 06	1 3 43	10 28 33	10 6 12	10 7 18
20	15 11	5 13 2	5 12 42	11 8 39	11 5 42	11 1 02	10 8 27	10 9 37
22	17 11	5 13 1	5 12 27	11 10 12	11 7 41	11 3 31	10 10 50	10 12 05
24	19 11	5 13 06	5 12 11	11 11 45	11 9 40	11 6 01	10 13 21	10 14 40
26	20 11	5 12 56	5 11 56	11 13 18	11 11 39	11 8 30	10 16 00	10 17 22
28	22 11	5 12 47	5 11 41	11 14 51	11 13 3	11 10 59	10 18 45	10 20 10
30	24 11	5 12 38	5 11 24	11 16 23	11 15 37	11 13 28	10 21 37	10 23 05
Apr. 1	26 11	5 12 28	5 11 09	11 17 [illegible]	11 17 35	11 15 57	10 24 35	10 26 06
3	28 11	5 12 19	5 10 54	11 19 28	11 19 33	11 18 26	10 27 39	10 29 14
5	1 12	5 12 10	5 10 39	11 21 00	11 21 32	11 20 55	11 0 49	11 2 27
7	3 12	5 12 00	5 10 24	11 22 32	11 23 30	11 23 24	11 4 05	11 5 46
9	5 12	5 11 51	5 10 09	11 24 04	11 25 28	11 25 53	11 7 27	11 9s11
11	8 12	5 11 43	5 9 55	11 25 35	11 27 26	1 28 21	11 10 55	11 12 42
13	10 12	5 11 34	5 9 41	11 27 07	11 29 23	0 0 50	11 14 30	11 16 19
15	11 12	5 11 25	5 9 27	11 28 38	0 1 21	0 3 18	11 18 10	11 20 02
17	13 12	5 11 17	5 9 14	0 0 09	0 3 18	0 5 47	11 21 56	11 23 52

1981 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	गु ♃ गु	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr.17	13	12	5R11 17	5R9 14	0 0s09	0 3 18	0 5s47	11 21s56	11 23 52
19	15	12	5 11 09	5 9 01	0 1 40	0 5 15	0 8 15	11 25 49	11 27 47
21	17	12	5 11 01	5 8 49	0 3 10	0 7 13	0 10 44	11 29 47	0 1 49
23	19	12	5 10 53	5 8 37	0 4 41	0 9 10	0 13 12	0 3 53	0 5 56
25	21	12	5 10 45	5 8 26	0 6 11	0 11 06	0 16 40	0 8 01	0 10 08
27	23	12	5 10 38	5 8 15	0 7 41	0 13 03	0 18 0	0 12 15	0 14 23
29	25	12	5 10 31	5 8 05	0 9 11	0 15 00	0 20 36	0 16 32	0 18 41
May 1	27	12	5 10 24	5 7 55	0 10 40	0 16 56	0 23r04	0 20 51	0 23 00
3	29	12	5 10 15	5 7 48	0 12 10	0 18 53	0 25 32	0 25 09	0 27 17
5	1	1	5 10 12	5 7 38	0 13 39	0 20 49	0 28 00	0 29 24	1 1r29
7	4	1	5 10 06	5 7 30	0 15 08	0 22 45	1 0 28	1 3 33	1 5 36
9	6	1	5 10 01	5 7 23	0 16 37	0 24 42	1 2 56	1 7 36	1 9 33
11	8	1	5 9 56	5 7 16	0 18 05	0 26 37	1 5 24	1 11 28	1 13 21
13	10	1	5 9 51	5 7 11	0 19 31	0 28 33	1 7 51	1 15 10	1 16 57
15	13	1	5 9 47	5 7 06	0 21 02	1 0 29	1 10 19	1 18 40	1 20 20
17	14	1	5 9 43	5 7 02	0 22 30	1 2 25	1 12 46	1 21 57	1 23 30
19	15	1	5 9 39	5 6 58	0 23 58	1 4 20	1 15 14	1 25 00	1 26 16
21	17	1	5 9 36	5 6 55	0 25 25	1 6 16	1 17 41	1 27 49	1 29 08
23	19	1	5 9 33	5 6 52	0 26 52	1 8 11	1 20 05	2 0 24	2 1 36
25	21	1	5 9 30	5 6 51	0 28 19	1 10 06	1 22 36	2 2 41	2 3 49
27	23	1	5 9 28	5D6 51	0 29 46	1 12 02	1 25 03	2 4 50	2 5 46
29	25	1	5 9 27	5 6 51	1 1 13	1 13 57	1 27 30	2 6 39	2 7 28
31	28	1	5 9 26	5 6 53	1 2 39	1 15 52	1 29 57	2 8 13	2 8 53
June 2	30	1	5 9 25	5 6 54	1 4 06	1 17 47	2 2 24	2 9 29	2 10 01
4	2	2	5 9 24	5 6 56	1 5 32	1 19 42	2 4 51	2 10 28	2 10 51
6	4	2	5D9 24	5 6 59	1 6 58	1 21 37	2 7 18	2 11 09	2 11 23
8	7	2	5 9 25	5 7 02	1 8 23	1 23 31	2 9 45	2 11 32	2R11 36
10	8	2	5 9 25	5 7 07	1 9 45	1 25 26	2 12 12	2 11 36	2 11 32
12	10	2	5 9 27	5 7 12	1 11 14	1 27 21	2 14 38	2 11 23	2 11 10
14	12	2	5 9 28	5 7 18	1 12 39	1 29 16	2 17 05	2 10 53	2 10 33
16	14	2	5 9 30	5 7 24	1 14r03	2 1 11	2 19 31	2 10 08	2 9 41
18	16	2	5 9 33	5 7 31	1 15 28	2 3 06	2 21 58	2 9 11	2 8 40
20	18	2	5 9 35	5 7 39	1 16 57	2 4 59	2 24 24	2 8 06	2 7 32
22	20	2	5 9 39	5 7 47	1 18 16	2 6 51	2 26 51	2 6 57	2 6 23
24	22	2	5 9 42	5 7 56	1 19 40	2 8 48	2 29 17	2 5 40	2 5 17
26	24	2	5 9 46	5 8 06	1 21 03	2 10 42	3 1 43	2 4 46	2 4 18
28	26	2	5 9 50	5 8 16	1 22 27	2 12 37	3 4 09	2 3 53	2 3 31
30	28	2	5 9 55	5 8 27	1 23 50	2 14 31	3 6 35	2 3 13	2 3 00
July 2	1	3	5 10 00	5 8 38	1 25 13	2 16 26	3 9 01	2 2r50	2D2 45
4	3	3	5 10 06	5 8 50	1 26 36	2 18 20	3 11 27	2 2 45	2 2 50
6	5	3	5 10 12	5 9 03	1 27 58	2 20 15	3 13 53	2 2 59	2 3 14
8	7	3	5 10 18	5 9 16	1 29 21	2 22 09	3 16 19	2 3 34	2 3 59
10	9	3	5 10 24	5 9 23	2 0 43	2 24 04	3 18 45	2 4 29	2 5 04
12	11	3	5 10 31	5 9 44	2 2 05	2 25 58	3 21 10	2 5 45	2 6 30
14	13	3	5 10 38	5 9 58	2 3 26	2 27 52	3 23 36	2 7 20	2 8 16
16	14	3	5 10 46	5 10 13	2 4 48	2 29 47	3 26 01	2 9 16	2 10 21
18	16	3	5 10 54	5 10 29	2 6 09	3 1 41	3 28 27	2 11 30	2 12 44
20	19	3	5 11 02	5 10 45	2 7 30	3 3 36	4 0 52	2 14 03	2 15 27
22	20	3	5 11 11	5 11 02	2 8 51	3 5 30	4 3 17	2 16 54	2 18 26
24	23	3	5 11 19	5 11 19	2 10 12	3 7 25	4 5 42	2 20 02	2 21 42
26	25	3	5 11 29	5 11 36	2 11 32	3 9 19	4 8 07	2 23 26	2 25 13
28	27	3	5 11 38	5 11 54	2 12 53	3 11 14	4 10 31	2 27 03	2 28 56
30	29	3	5 11 48	5 12 12	2 14 13	3 13 09	4 12 56	3 0 52	3 2 50
Aug. 1	1	4	5 11 58	5 12 31	2 15 32	3 15 04	4 15 21	3 4s50	3 6 52

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ नि	गु ♃ रु	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	1	4	5 11 58	5 12 31	2 15 32	3 15 04	4 15 21	3 4s50	3 6 52
3	3	4	5 12 08	5 12 50	2 16 52	3 16 59	4 17 45	3 8 55	3 10 59
5	5	4	5 12 19	5 13 10	2 18 11	3 18 53	4 20 09	3 13 03	3 15 08
7	7	4	5 12 29	5 13 30	2 19 31	3 20 48	4 22 33	3 17 13	3 19 17
9	9	4	5 12 40	5 13 50	2 20 50	3 22 43	4 24 57	3 21 21	3 23☌25
11	11	4	5 12 52	5 14 10	2 22 08	3 24 39	4 27 21	3 25 27	3 27 28
13	13	4	5 13 03	5 14 31	2 23 27	3 26 34	4 29 45	3 29 29	4 1 28
15	15	4	5 13 15	5 14 53	2 24 45	3 28 29	5 2 08	4 3 26	4 5 23
17	17	4	5 13 27	5 15 14	2 26 03	4 0 24	5 4 32	4 7 18	4 9 12
19	19	4	5 13 39	5 15 36	2 27 21	4 2 20	5 6 55	4 11 04	4 12 55
21	21	4	5 13 51	5 15 58	2 28 39	4 4 15	5 9 18	4 14 45	4 16 33
23	23	4	5 14 04	5 16 20	2 29 57	4 6 11	5 11 40	4 18 20	4 20r06
25	26	4	5 14 17	5 16 43	3 1 14	4 8 06	5 14 03	4 21 50	4 23 33
27	28	4	5 14 30	5 17 06	3 2 31	4 10 02	5 16 26	4 25 15	4 26 55
29	30	4	5 14 42	5 17 29	3 3 48	4 11 58	5 18 48	4 28 34	5 0 11
31	2	5	5 14 56	5 17 53	3 5 05	4 13 54	5 21 10	5 1 48	5 3 23
Sept.2	4	5	5 15 09	5 18 16	3 6 21	4 15 50	5 23 32	5 4 57	5 6 29
4	6	5	5 15 23	5 18 40	3 7 37	4 17 47	5 25 53	5 8 01	5 9 31
6	7	5	5 15 37	5 19 04	3 8 53	4 19 43	5 28 15	5 10 59	5 12 27
8	9	5	5 15 51	5 19 28	3 10 09	4 21 39	6 0 36	5 13 53	5 15 18
10	11	5	5 16 04	5 19 53	3 11 25	4 23 36	6 2 57	5 16 42	5 18 04
12	13	5	5 16 18	5 20 17	3 12 40	4 25 33	6 5 17	5 19 25	5 20 44
14	15	5	5 16 33	5 20 42	3 13 55	4 27 29	6 7 38	5 22 02	5 23 18
16	18	5	5 16 47	5 21 07	3 15 10	4 29 26	6 9 58	5 24 33	5 25 46
18	20	5	5 17s01	5 21 32	3 16 25	5 1 23	6 12 17	5 26 58	5 28 07
20	22	5	5 17 16	5 21 57	3 17 39	5 3 21	6 14 37	5 29 15	6 0 21
22	24	5	5 17 30	5 22 23	3 18 54	5 5 18	6 16 56	6 1 24	6 2 25
24	26	5	5 17 45	5 22 48	3 20 08	5 7 16	6 19 15	6 3 24	6 4 20
26	28	5	5 17 59	5 23 14	3 21 21	5 9 13	6 21 33	6 5 18	6 6 02
28	30	5	5 18 14	5 23s39	3 22 35	5 11 11	6 23 51	6 6 49	6 7 31
30	2	6	5 18 29	5 24 05	3 23 48	5 13 09	6 26 09	6 8 10	6 8 44
Oct. 2	4	6	5 18 43	5 24 31	3 25 01	5 15 07	6 28 27	6 9 14	6 9 38
4	6	6	5 18 58	5 24 57	3 26 14	5 17 05	7 0 44	6 9 57	6 10 09
6	8	6	5 19☌13	5 25 23	3 27 26	5 19 03	7 3 00	6R10 15	6 10 15
8	10	6	5 19 28	5 25 49	3 29 39	5 21 02	7 5 16	6 10s06	6 9 50
10	12	6	5 19 42	5 26 15	3 29 50	5 23 00	7 7 32	6 9 26	6 8 54
12	14	6	5 19 57	5 26 41	4 1 02	5 24 59	7 9 47	6 8 13	6 7 25
14	16	6	5 20 12	5 27☌07	4 2 14	5 26 57	7 12 01	6 6 29	6 5 27
16	18	6	5 20 26	5 27 33	4 3 25	5 28 56	7 14 15	6 4 19	6 3 08
18	21	6	5 20 41	5 27 59	4 4 36	6 0 55	7 16 28	6 1☌54	6 0 40
20	23	6	5 20r55	5 28 25	4 5 46	6 2 55	7 18 40	5 29 29	5 28 21
22	25	6	5 21 10	5 28 51	4 6 56	6 4 54	7 20 52	5 27 21	5 26r28
24	27	6	5 21 24	5 29 17	4 8 06	6 6 53	7 23 03	5 25 45	5 25 12
26	29	6	5 21 39	5 29r43	4 9 16	6 8 53	7 25 14	5 24 50	5D24 40
28	1	7	5 21 53	6 0 09	4 10 25	6 10 53	7 27 23	5 24 42	5 24 54
30	2	7	5 22 07	6 0 34	4 11 34	6 12 53	7 29 32	5 25 17	5 26 49
Nov. 1	4	7	5 22 21	6 1 00	4 12 43	6 14 53	8 1 39	5 26 30	5 27 19
3	6	7	5 22 35	6 1 26	4 13 51	6 16 53	8 3 46	5 28 15	5 29 18
5	8	7	5 22 49	6 1 51	4 14 59	6 18 53	8 5 51	6 0 25	6 1 38
7	10	7	5 23 03	6 2 17	4 16 06	6 20 54	8 7 55	6 2 54	6 4 14
9	12	7	5 23 16	6 2 42	4 17 13	6 22 54	8 9 58	6 5 37	6 7 03
11	14	7	5 23 30	6 3 07	4 18 20	6 24 55	8 12 00	6 8 30	6 9 59
13	17	7	5 23 43	6 3 32	4 19 26	6 26 55	8 13 59	6 11 29	6 13 01
15	19	7	5 23 56	6 3 57	4 20 32	6 28 56	8 15 58	6 14 33	6 16 06

Longitudes of Planets

Date	Tithi & Month		Nirayana Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	भ ♂ भ	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	19	7	5 23 56	6 3 57	4 20 32	6 28 56	8 15 59	6 14 33	6 16 06
17	21	7	5 24 09	6 4 22	4 21 37	7 0 57	8 17 54	6 17 40	6 19 14
19	23	7	5 24 21	6 4 47	4 22 42	7 2 58	8 19 49	6 20 48	6 22 23
21	25	7	5 24 34	6 5 11	4 23 46	7 4 59	8 21 21	6 23 58	6 25s33
23	27	7	5 24 46	6 5 35	4 24 50	7 7 00	8 23 42	6 27 08	6 28 42
25	29	7	5 24 58	6 5 59	4 25 54	7 9 02	8 25 20	7 0 17	7 1 52
27	1	8	5 25 10	6 6 23	4 26 57	7 11 03	8 27 05	7 3 27	7 5 02
29	3	8	5 25 22	6 6 46	4 27 59	7 13 05	8 28 48	7 6 36	7 8 11
Dec. 1	4	8	5 25 33	6 7 10	4 29 01	7 15 06	9 0 27	7 9 45	7 11 20
3	6	8	5 25 44	6 7 33	5 0 02	7 17 08	9 2 03	7 12 54	7 14 28
5	8	8	5 25 55	6 7 55	5 1 02	7 19 10	9 3 36	7 16 03	7 17 37
7	10	8	5 26 05	6 8 18	5 2 02	7 21 12	9 5 05	7 19 11	7 20 45
9	13	8	5 26 16	6 8 40	5 3 02	7 23 14	9 6 29	7 22 19	7 23☌54
11	15	8	5 26 26	6 9 02	5 4 00	7 25 15	9 7 49	7 25 28	7 27 02
13	17	8	5 26 35	6 9 23	5 4 58	7 27 17	9 9 04	7 28 37	8 0 11
15	20	8	5 26 45	6 9 44	5 5 55	7 29 19	9 10 13	8 1 46	8 3 21
17	22	8	5 26 54	6 10 05	5 6 52	8 1 21	9 11 17	8 4 55	8 6 30
19	24	8	5 27 02	6 10 25	5 7 48	8 3 24	9 12 14	8 8 06	8 9 41
21	26	8	5 27 11	6 10 46	5 8 42	8 5 26	9 13 05	8 11 16	8 12 52
23	27	8	5 27 19	6 11 05	5 9 36	8 7 28	9 13 48	8 14 28	8 16 04
25	29	8	5 27 27	6 11 24	5 10 29	8 9 30	9 14 23	8 17 40	8 19 16
27	1	9	5 27 36	6 11 43	5 11 21	8 11 33	9 14 50	8 20 23	8 22 29
29	3	9	5 27 41	6 12 02	5 12 13	8 13 35	9 15 08	8 24 06	8 25r42
31	5	9	5 27 48	6 12 20	5 13 03	8 15 37	9R15 17	8 27 19	8 28 55
Jan. 2	7	9	5 27 54	6 12 37	5 13 52	8 17 40	9 15 16	9 0 31	9 2 07

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	3 17 27	3 18 55	7 4 49	7 29 28	6 0 34	23 35 17
February	1	3 17 16	3 17 19	7 6 04	8 0 29	6 R 0 45	23 35 22
March	1	3 17 06	3 15 48	7R 6 31	8 1 05	6 0 26	23 35 25
April	1	3 15 20	3 14 09	7 6 12	8R 1 16	5 29 43	23 35 28
May	1	3 12 11	3 12 34	7 5 15	8 0 57	5 28 53	23 35 31
June	1	3 9 18	3 10 55	7 3 59	8 0 15	5 28 12	23 35 35
July	1	3 8 10	3 9 20	7 2 56	7 29 27	5D 27 56	23 35 40
August	1	3 8 10	3 7 41	7D 2 28	7 28 47	5 28 12	23 35 45
September	1	3 7 45	3 6 03	7 2 47	7D 28 30	5 28 57	23 35 48
October	1	3 5 42	3 4 27	7 3 49	7 28 42	6 0 01	23 35 51
November	1	3 2 15	3 2 49	7 5 28	7 29 23	6 1 15	23 35 54
December	1	2 29 39	3 1 13	7 7 18	8 0 23	6 2 19	23 35 59
January	1	2 28 52	2 29 35	7 9 05	8 1 33	6 3 05	23 36 04

Combustion or Heliacal Setting of Planets

Saturn	:	From Sept. 18 to Oct. 19.
Jupiter	:	From Sept. 29 to Oct. 25.
Mars	:	From Jan. 27 to June 15.
Venus	:	From Feb. 27 to May 1.
Mercury	:	Up to Jan. 16 then from Feb. 11 to Feb. 23, Apr. 10 to May 6, June 12 to July 2, Aug. 1 to Aug. 24, Oct. 8 to Oct. 23, Nov. 22 to Dec. 30.

Retrogression of Planets

PLANET	RETROGRADE Date				Long.			DIRECT Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Feb.	8,	17	58	10	11	19	Mar.	2,	12	47	9	26	16
	June	9,	17	09	2	11	36	July	3,	18	25	2	2	45
	Oct.	6,	14	37	6	10	15	Oct.	27,	14	44	5	24	39
Venus	Dec.	31,	25	15	9	15	18	—		—		—		
Mars	—		—		—			—		—		—		
Jupiter	Jan.	24,	25	25	5	16	48	May	27,	23	50	5	6	51
Saturn	Jan.	18,	23	13	5	16	12	June	5,	7	48	5	9	24
Uranus	Mar.	5,	6	11	7	6	31	Aug.	4,	15	22	7	2	27
Neptune	Mar.	27,	9	11	8	1	16	Sept.	3,	17	29	7	28	30
Pluto	Jan.	26,	16	29	6	0	45	July	1,	23	29	5	27	56

New-Moon and Full-Moon

New-Moon				Lunar months begin		Full-Moon				Hindi months begin	
	d	h	m				d	h	m		
Jan.	6	12	54	Pauṣa	Sukla	Jan.	20	13	09	Māgha	Vadi
Feb.	4	27	44	Magha	,,	Feb.	18	28	28	Phālguna	,,
Mar.	6	16	01	Phālguna	,,	Mar.	20	20	52	Caitra	,,
Apr.	4	25	49	Caitra	,,	Apr.	19	13	29	Vaiśakha	,,
May	4	9	49	Vaiśakha	,,	May	19	5	34	Jyaiṣṭha	,,
June	2	17	2	Jyaiṣṭha	,,	June	17	20	34	Āṣaḍha	,,
July	1	21	33	Āṣāḍha	,,	July	17	10	09	Śravaṇa	,,
July	31	9	22	Śravaṇa	,,	Aug.	15	22	07	Bhādra	,,
Aug.	29	20	13	Bhādra	,,	Sept.	14	8	39	Āśvina	,,
Sept.	28	9	37	Āśvina	,,	Oct.	13	18	19	Kārtika	,,
Oct.	27	25	43	Kārtika	,,	Nov.	11	27	50	Agrahā	,,
Nov.	26	20	08	Agrahā	,,	Dec.	11	14	11	Pauṣa	,,
Dec.	26	15	40	Pauṣa	,,	—					

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	25	57	Karkaṭa	on	July	16	11	03
Kumbha	on	Feb.	12	14	58	Siṁha	on	Aug.	16	19	27
Mina	on	Mar.	14	11	55	Kanyā	on	Sept.	16	19	19
Meṣa	on	Apr.	13	20	29	Tulā	on	Oct.	17	7	11
Vṛsa	on	May	14	17	26	Vṛścika	on	Nov.	16	6	53
Mithuna	on	June	14	24	07	Dhanus	on	Dec.	15	21	28

SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time		
JAN.			
	h	*m*	*s*
1	18	41	48
2	18	45	45
3	18	49	42
4	18	53	38
5	18	57	35
6	19	1	31
7	19	5	28
8	19	9	24
9	19	13	21
10	19	17	18
11	19	21	14
12	19	25	11
13	19	29	7
14	19	33	4
15	19	37	0
16	19	40	57
17	19	44	53
18	19	48	50
19	19	52	47
20	19	56	43
21	20	0	40
22	20	4	36
23	20	8	33
24	20	12	29
25	20	16	26
26	20	20	22
27	20	24	19
28	20	28	16
29	20	32	12
30	20	36	9
31	20	40	5
FEB.			
1	20	44	2
2	20	47	58
3	20	51	55
4	20	55	51
5	20	59	48
6	21	3	45
7	21	7	41
8	21	11	38
9	21	15	34
10	21	19	31
11	21	23	27
12	21	27	24
13	21	31	20
14	21	35	17
15	21	39	14
16	21	43	10
17	21	47	7
18	21	51	3
19	21	55	0
20	21	58	56
21	22	2	53
22	22	6	49
23	22	10	46
24	22	14	43
25	22	18	39
26	22	22	36
27	22	26	32
28	22	30	29
29	22	34	25
MAR.			
1	22	34	25
2	22	38	22
3	22	42	18
4	22	46	15
5	22	50	12
6	22	54	8
7	22	58	5
8	23	2	1
9	23	5	58
10	23	9	54
11	23	13	51
12	23	17	47
13	23	21	44
14	23	25	41
15	23	29	37
16	23	33	34
17	23	37	30
18	23	41	27
19	23	45	23
20	23	49	20
21	23	53	16
22	23	57	13
23	0	1	10
24	0	5	6
25	0	9	3
26	0	12	59
27	0	16	56
28	0	20	52
29	0	24	49
30	0	28	45
31	0	32	42
APRIL			
	h	*m*	*s*
1	0	36	39
2	0	40	35
3	0	44	32
4	0	48	28
5	0	52	25
6	0	56	21
7	1	0	18
8	1	4	14
9	1	8	11
10	1	12	8
11	1	16	4
12	1	20	1
13	1	23	57
14	1	27	54
15	1	31	50
16	1	35	47
17	1	39	43
18	1	43	40
19	1	47	37
20	1	51	33
21	1	55	30
22	1	59	26
23	2	3	23
24	2	7	19
25	2	11	16
26	2	15	12
27	2	19	9
28	2	23	6
29	2	27	2
30	2	30	59
MAY			
1	2	34	55
2	2	38	52
3	2	42	48
4	3	46	45
5	2	50	41
6	2	54	38
7	2	58	35
8	3	2	31
9	3	6	28
10	3	10	24
11	3	14	21
12	3	18	17
13	3	22	14
14	3	26	10
15	3	30	7
16	3	34	4
17	3	38	0
18	3	41	56
19	3	45	53
20	3	49	50
21	3	53	46
22	3	57	43
23	4	1	39
24	4	5	36
25	4	9	33
26	4	13	29
27	4	17	26
28	4	21	22
29	4	25	19
30	4	29	15
31	4	33	12
JUNE			
1	4	37	8
2	4	41	5
3	4	45	2
4	4	48	58
5	4	52	55
6	4	56	51
7	5	0	48
8	5	4	44
9	5	8	41
10	5	12	37
11	5	16	34
12	5	20	31
13	5	24	27
14	5	28	24
15	5	32	20
16	5	36	17
17	5	40	13
18	5	44	10
19	5	48	6
20	5	52	3
21	5	56	0
22	5	59	56
23	6	3	53
24	6	7	49
25	6	11	46
26	6	15	42
27	6	19	39
28	6	23	35
29	6	27	32
30	6	31	29
JULY			
	h	*m*	*s*
1	6	35	25
2	6	39	22
3	6	43	18
4	6	47	15
5	6	51	11
6	6	55	8
7	6	59	4
8	7	3	1
9	7	6	58
10	7	10	54
11	7	14	51
12	7	18	47
13	7	22	44
14	7	26	40
15	7	30	37
16	7	34	33
17	7	38	30
18	7	42	27
19	7	46	23
20	7	50	20
21	7	54	16
22	7	58	13
23	8	2	9
24	8	6	6
25	8	10	2
26	8	13	59
27	8	17	56
28	8	21	52
29	8	25	49
30	8	29	45
31	8	33	42
AUG.			
1	8	37	38
2	8	41	35
3	8	45	31
4	8	49	28
5	8	53	25
6	8	57	21
7	9	1	18
8	9	5	14
9	9	9	11
10	9	13	7
11	9	17	4
12	9	21	0
13	9	24	57
14	9	28	54
15	9	32	50

Sidereal Time : Table I—*contd.*

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	AUGUST		SEPT.		OCT.		NOV.		DEC.
	h m s		*h m s*		*h m s*		*h m s*		*h m s*
16	9 36 47	12	11 23 14	9	13 9 41	5	14 56 8	2	16 42 35
17	9 40 43	13	11 27 10	10	13 13 37	6	15 0 4	3	16 46 31
18	9 44 40	14	11 31 7	11	13 17 34	7	15 4 1	4	16 50 28
19	9 48 36	15	11 35 3	12	13 21 30	8	15 7 57	5	16 54 24
20	9 52 33	16	11 39 0	13	13 25 27	9	15 11 54	6	16 58 21
21	9 56 29	17	11 42 56	14	13 29 23	10	15 15 50	7	17 2 17
22	10 0 26	18	11 46 53	15	13 33 20	11	15 19 47	8	17 6 14
23	10 4 23	19	11 50 50	16	13 37 16	12	15 23 43	9	17 10 10
24	10 8 19	20	11 54 46	17	13 41 13	13	15 27 40	10	17 14 7
25	10 12 16	21	11 58 43	18	13 45 10	14	15 31 37	11	17 18 4
26	10 16 12	22	12 2 39	19	13 49 6	15	15 35 33	12	17 22 0
27	10 20 9	23	12 6 36	20	13 53 3	16	15 39 30	13	17 25 57
28	10 24 5	24	12 10 32	21	13 56 59	17	15 43 26	14	17 29 53
29	10 28 2	25	12 14 29	22	14 0 56	18	15 47 23	15	17 33 50
30	10 31 58	26	12 18 25	23	14 4 52	19	15 51 19	16	17 37 46
31	10 35 55	27	12 22 22	24	14 8 49	20	15 55 16	17	17 41 43
		28	12 26 19	25	14 12 45	21	15 59 12	18	17 45 39
	SEPT.	29	12 30 15	26	14 16 42	22	16 3 9	19	17 49 36
		30	12 34 12	27	14 20 39	23	16 7 6	20	17 53 33
1	10 39 52			28	14 24 35	24	16 11 2	21	17 57 29
2	10 43 48		OCT.	29	14 28 32	25	16 14 59	22	18 1 26
3	10 47 45			30	14 32 28	26	16 18 55	23	18 5 22
4	10 51 41	1	12 38 8	31	14 36 25	27	16 22 52	24	18 9 19
5	10 55 38	2	12 42 5			28	16 26 48	25	18 13 15
6	10 59 34	3	12 46 1		NOV.	29	16 30 45	26	18 17 12
7	11 3 31	4	12 49 58			30	16 34 41	27	18 21 8
8	11 7 27	5	12 53 54	1	14 40 21			28	18 25 5
9	11 11 24	6	12 57 51	2	14 44 18		DEC.	29	18 29 2
10	11 15 21	7	13 1 48	3	14 48 14			30	18 32 58
11	11 19 17	8	13 5 44	4	14 52 11	1	16 38 38	31	18 36 55

SIDEREAL TIME—TABLE II—Correction for years

(Correction to the result of Table I for the years 1971 to 1981)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	m s	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*	*m s*
Jan. & Feb.	−0 47	−1 44	+1 15	+0 18	−0 39	−1 36	+1 23	+0 25	−0 32	−1 29
Mar. to Dec.	−0 47	+2 13	+1 15	+0 18	−0 39	+2 20	+1 23	+0 25	−0 32	+2 28

1981 : +1*m* 30*s* +1*m* 30*s*

SIDEREAL TIME—TABLE III—Correction for places

Corrections for a few places are given below. For other places see the last page of Indian Ephemeris or the Tables of Ascendants.

Place	Correction	Place	Correction	Place	Correction
	m s		*m s*		*m s*
Allahabad	+0 0	Colombo	+0 2	Madras	+0 1
Bangalore	+0 2	Dhaka	−0 5	New York	+1 43
Bangkok	−0 12	Delhi	+0 3	Rangoon	−0 9
Bombay	+0 6	Greenwich	+0 54	Islamabad	+0 6
Calcutta	−0 4	Kuala Lumpur	−0 13	Varanasi	−0 0

The time interval of the epoch from 12h noon Local Mean Time is now to be subtracted from (if before noon) or added (if after noon) to the Sidereal time obtained from the above tables for 12h noon of the date and place in question. Before doing so the time interval is to be increased by 10 secs. per hour and then subtracted or added.

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1971										
January	2° S22′	14° N21′	0° N53′	18° S46′	0° N49′	15° S52′	3° N48′	15° S17′	3° N03′	20° S23′
February	2 13	14 29	0 55	19 49	0 32	20 43	3 07	20 14	0 S31	22 27
March	2 05	15 00	0 57	20 19	0 N09	23 06	1 N16	19 38	2 S03	11 S40
April	1 59	15 54	1 00	20 23	0 S28	23 24	0 S41	11 S06	2 N32	13 N39
May	1 55	16 53	1 01	20 00	1 24	21 50	1 39	1 N59	1 S18	7 53
June	1 53	17 50	0 59	19 18	2 49	19 36	1 27	15 20	2 S21	15 15
July	1 54	18 36	0 54	18 43	4 46	18 54	0 S25	22 50	1 N52	23 51
August	1 57	19 07	0 46	18 40	6 39	21 20	0 N48	20 46	1 S39	8 05
September	2 01	19 22	0 39	19 14	6 14	23 04	1 24	9 N23	2 S56	9 12
October	2 06	19 19	0 34	20 11	4 13	20 24	1 N04	5 S27	1 N43	1 N08
November	2 09	19 00	0 30	21 17	2 21	14 39	0 S04	19 05	1 S25	19 S42
December	2 S09	18 N35	0 N26	22 S12	1 S03	7 S18	1 S15	24 S41	1 S43	25 S09
1972										
January	2 S04	18 N14	0 N24	22 S50	0 S10	1 N12	1 S48	19 S15	1 N59	20 S51
February	1 55	18 11	0 22	23 04	0 N26	9 35	1 05	5 S29	1 S43	21 50
March	1 48	18 29	0 21	23 03	0 47	16 26	0 N38	9 N32	0 S41	4 S00
April	1 40	19 05	0 19	22 55	1 01	21 47	2 54	22 18	2 N47	6 N42
May	1 35	19 46	0 17	22 54	1 08	24 22	4 12	27 30	2 S55	2 50
June	1 32	20 26	0 14	23 03	1 12	24 03	2 N06	25 29	0 N04	21 20
July	1 31	20 57	0 11	23 14	1 12	21 00	4 S03	18 59	1 N14	20 37
August	1 32	21 18	0 06	23 21	1 09	15 34	4 49	18 35	4 S41	10 17
September	1 35	21 28	0 N02	23 24	1 04	8 30	2 33	18 59	0 N55	14 N55
October	1 38	21 29	0 S02	23 28	0 56	0 N51	0 S06	13 05	0 N27	6 S03
November	1 40	21 23	0 05	23 26	0 46	7 S10	1 N32	0 N53	2 S40	23 03
December	1 S40	21 N13	0 S08	23 S08	0 N33	14 S18	1 N47	12 S28	2 N11	17 S39
1973										
January	1 S36	21 N02	0 S10	22 S26	0 N16	20 S05	0 N54	21 S52	0 S01	23 S20
February	1 30	20 58	0 13	21 21	0 S05	23 18	0 S25	21 30	2 S03	18 S32
March	1 23	21 06	0 17	20 10	0 3[illegible]	23 25	1 16	12 S34	2 N14	1 N06
April	1 16	21 24	0 21	18 53	1 02	20 21	1 21	2 N17	0 S28	5 S58
May	1 11	21 46	0 26	17 58	1 37	14 44	0 S33	16 06	2 S25	5 N55
June	1 07	22 06	0 33	17 41	2 16	7 22	0 N40	23 59	1 N53	25 11
July	1 05	22 18	0 39	18 12	2 51	0 S01	1 31	21 28	1 S11	18 33
August	1 04	22 23	0 45	19 15	3 20	6 N24	1 25	9 N45	3 S28	18 04
September	1 04	22 21	0 47	20 08	3 32	10 27	0 N09	5 S56	1 N46	10 N43
October	1 05	22 17	0 47	20 24	3 03	11 24	1 S42	19 31	1 S08	11 S36
November	1 05	22 16	0 45	19 59	1 S24	9 57	3 14	26 35	2 S33	21 51
December	1 S05	22 N20	0 S44	18 S55	0 N16	10 N06	2 S56	24 S07	2 N06	15 S31
1974										
January	1 S02	22 N24	0 S44	17 S13	1 N08	13 N26	1 N17	16 S10	1 S22	24 S42
February	0 58	22 28	0 45	15 02	1 29	18 04	7 35	12 57	1 S02	13 31
March	0 52	22 33	0 47	12 49	1 35	21 53	5 33	14 41	3 N24	7 45
April	0 47	22 40	0 51	10 21	1 34	24 31	1 N33	11 53	2 S09	8 S04
May	0 42	22 44	0 56	8 12	1 30	24 47	1 S05	2 S41	0 S45	12 N48
June	0 38	22 44	1 03	6 35	1 23	22 29	2 06	9 N48	1 N58	25 22
July	0 35	22 36	1 12	5 56	1 15	17 58	1 37	19 43	4 S26	18 44
August	0 33	22 20	1 21	6 25	1 04	11 29	0 S18	22 30	0 S05	21 35
September	0 31	22 00	1 27	7 49	0 52	3 N49	0 N58	15 28	0 N54	4 N16
October	0 30	21 14	1 27	9 14	0 39	4 S05	1 27	2 N07	2 S48	15 S11
November	0 28	21 38	1 22	9 50	0 24	11 58	0 N57	12 S53	1 N07	8 49
December	0 S27	21 N47	1 S16	9 S16	0 N07	18 S26	0 S09	22 S41	0 N33	19 S12

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1975										
January	0° S24′	22° N06′	1° S10′	7° S38′	0° S12′	22° S18′	1° S14′	22° S38′	2° S06′	24° S27′
February	0 20	22 25	1 06	5 14	0 33	23 47	1 32	12 S08	2 N09	11 S06
March	0 17	22 37	1 05	2 S41	0 53	21 22	0 S52	1 N56	0 N29	16 S23
April	0 13	22 40	1 05	0 N17	1 14	15 25	0 N37	16 49	2 S19	4 S35
May	0 09	22 33	1 07	3 03	1 30	7 S26	2 05	25 08	1 N30	20 N06
June	0 06	22 16	1 11	5 30	1 39	1 N39	2 33	23 46	0 S23	22 N54
July	0 04	21 48	1 16	7 14	1 39	9 53	0 N59	14 41	3 S42	19 N11
August	0 S01	21 11	1 24	8 09	1 27	16 39	3 S45	3 53	1 N40	19 57
September	0 N02	20 32	1 32	7 58	1 03	20 56	8 31	3 10	0 S46	1 N24
October	0 05	19 59	1 37	6 50	0 S22	22 58	4 S21	7 56	3 S39	12 S30
November	0 08	19 40	1 35	5 20	0 N44	24 09	0 N07	3 N28	2 N04	6 S32
December	0 N12	19 44	1 S28	4 N32	2 N12	25 N37	2 N10	6 S59	0 S55	22 S45
1976										
January	0 N15	20 N10	1 S18	4 N55	3 N08	25 N57	2 N13	17 S52	1 S49	22 S27
February	0 19	20 45	1 10	6 25	2 59	25 37	0 N57	22 19	3 N09	18 13
March	0 21	21 10	1 04	8 29	2 34	25 49	0 S30	17 29	1 S30	17 S05
April	0 22	21 19	1 00	10 59	2 09	25 27	1 26	4 S55	1 S09	3 N08
May	0 25	21 09	0 55	13 24	1 48	23 30	1 21	9 N27	2 N42	22 57
June	0 26	20 40	0 57	15 38	1 28	19 29	0 S25	20 53	3 S40	15 27
July	0 28	19 58	0 58	17 21	1 10	13 49	0 N44	23 33	0 S49	22 27
August	0 31	19 03	1 01	18 36	0 53	6 N35	1 26	15 53	1 N22	14 N20
September	0 34	18 05	1 04	19 14	0 35	1 S27	1 10	1 N26	3 S05	4 S51
October	0 37	17 14	1 08	19 15	0 N17	9 S19	0 N01	13 S29	0 S02	2 N42
November	0 42	16 39	1 09	18 41	0 S01	16 S37	1 S28	23 54	0 N49	12 S18
December	0 N47	16 N32	1 S06	17 N49	0 S19	21 S50	2 S17	24 S13	2 S05	25 S16
1977										
January	0 N53	16 N56	0 S59	17 N12	0 S37	24 S04	1 S36	14 S21	1 N14	20 S27
February	0 57	17 40	0 50	17 22	0 53	22 17	1 N02	0 N29	0 N31	21 49
March	0 59	18 18	0 43	18 10	1 05	17 20	4 56	12 33	2 S08	14 S16
April	0 59	18 41	0 37	19 26	1 12	9 12	7 58	15 01	1 N10	11 N17
May	0 59	18 36	0 33	20 44	1 12	0 S05	2 N21	5 32	0 N40	15 27
June	0 59	18 05	0 29	21 51	1 05	9 N06	2 S01	7 59	3 S17	13 31
July	0 59	17 15	0 27	22 36	0 50	16 27	2 54	15 59	1 N22	24 25
August	1 00	16 08	0 25	22 58	0 S27	21 29	1 53	21 32	0 S16	9 31
September	1 03	14 55	0 24	23 02	0 N02	23 28	0 S10	19 06	4 S25	1 14
October	1 06	13 48	0 23	22 58	0 38	22 56	1 N10	8 N49	1 N53	4 N04
November	1 12	12 55	0 21	22 57	1 27	21 05	1 33	5 S50	0 S38	17 S25
December	1 N18	12 N32	0 S18	23 N05	2 N31	19 N59	0 N54	18 S24	2 S23	25 S49
1978										
January	1 N25	12 N45	0 S14	23 N12	3 N52	21 N43	0 S18	23 S38	2 N59	20 S10
February	1 31	13 28	0 09	23 15	4 25	24 56	1 16	17 48	1 S09	22 22
March	1 33	14 17	0 05	23 18	3 44	25 17	1 25	5 S35	1 S41	8 S45
April	1 33	14 56	0 S01	23 25	2 46	23 30	0 S39	10 N03	3 N16	13 N07
May	1 31	15 04	0 N02	23 26	2 02	20 14	0 N38	21 40	2 S21	4 12
June	1 29	14 39	0 05	23 13	1 26	15 13	1 44	24 38	1 S24	17 38
July	1 27	13 48	0 08	22 39	0 58	6 55	1 49	17 24	1 N51	22 39
August	1 26	12 35	0 11	21 43	0 33	1 N20	0 N24	3 N26	2 S59	7 51
September	1 28	11 13	0 14	20 34	0 N11	6 S43	2 S26	11 S40	1 S04	13 N27
October	1 31	9 54	0 18	19 27	0 S09	14 10	5 39	22 33	1 N17	1 S54
November	1 36	8 46	0 23	18 37	0 28	20 27	5 S59	23 14	2 S00	21 S23
December	1 N43	8 N06	0 N29	18 N28	0 S44	23 S52	0 N44	13 S18	0 S16	23 S17

LATITUDES AND DECLINATIONS

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli	Lat.	Decli
1979										
January	1°N51′	8°N03′	0°N35′	19°N05′	0°S56′	23°S33′	3°N44′	15°S15′	1°N06′	21°S54′
February	1 58	8 37	0 40	20 07	1 04	19 04	3 01	20 20	2 S00	20 46
March	2 02	9 28	0 41	20 50	1 05	12 10	1 N12	19 37	0 N15	1 S32
April	2 02	10 20	0 41	21 01	1 00	2 S48	0 S44	10 S56	1 N35	0 N28
May	1 59	10 44	0 40	20 36	0 49	6 N29	1 39	2 N13	2 S52	3 10
June	1 55	10 32	0 40	19 37	0 32	14 51	1 25	15 32	0 N53	23 10
July	1 51	9 47	0 40	18 11	0 S12	20 39	0 S23	22 54	0 N34	19 44
August	1 49	8 36	0 41	16 18	0 N11	23 31	0 N49	20 39	4 S56	13 35
September	1 48	7 10	0 44	14 11	0 36	23 10	1 25	9 N13	1 N31	14 N09
October	1 50	5 44	0 47	12 06	1 04	20 23	1 N02	5 S44	0 S07	8 S07
November	1 55	4 25	0 53	10 14	1 36	16 05	0 S06	19 16	2 S54	23 19
December	2 N01	3 N31	0 N59	9 N02	2 N15	11 N53	1 S17	24 S42	2 N36	15 S12
1980										
January	2 N10	3 N11	1 N08	8 N47	3 N08	9 N12	1 S48	19 S06	0 S3[illegible]	24 S00
February	2 18	3 31	1 15	9 39	4 06	10 11	1 S03	5 S14	1 S53	16 58
March	2 23	4 19	1 19	11 03	4 19	14 05	0 N42	9 N45	3 N28	0 40
April	2 25	5 17	1 18	12 15	3 16	15 54	3 00	22 27	1 S28	7 S46
May	2 22	5 54	1 14	12 31	2 06	13 43	4 18	27 34	1 S48	8 N48
June	2 16	5 56	1 09	11 48	1 12	8 54	1 N5[illegible]	25 25	2 N10	25 37
July	2 10	5 22	1 05	10 18	0 33	2 N37	4 S06	18 42	2 S48	18 24
August	2 06	4 17	1 03	8 10	0 N02	4 S50	4 40	18 42	1 S52	20 11
September	2 04	2 53	1 02	5 40	0 S22	12 27	2 26	19 04	1 N30	7 N43
October	2 04	1 26	1 03	3 08	0 S42	18 57	0 S02	13 N00	1 S53	13 S10
November	2 08	0 N01	1 06	0 N40	0 56	23 27	1 N33	0 N41	1 S12	17 S15
December	2 N13	1 S02	1 N11	1 S18	1 S05	24 S21	1 N46	12 S41	1 N25	17 S06
1981										
January	2 N21	1 S36	1 N18	2 S34	1 S08	21 S04	0 N52	21 S58	1 S47	24 S47
February	2 30	1 31	1 27	2 45	1 04	14 05	0 S27	21 25	0 N07	11 16
March	2 36	0 S55	1 33	1 57	0 55	5 S49	1 17	12 S21	2 N08	12 48
April	2 39	0 N02	1 36	0 S25	0 40	3 N57	1 20	2 N33	2 S23	6 S52
May	2 37	0 49	1 32	0 N49	0 22	12 36	0 S31	16 19	0 N16	16 N25
June	2 31	1 07	1 25	1 07	0 S02	19 27	0 N43	24 03	1 N15	24 40
July	2 24	0 N48	1 18	0 N21	0 N18	23 12	1 32	21 21	4 S40	18 44
August	2 18	0 S06	1 12	1 S20	0 38	23 45	1 24	9 N31	0 N59	21 26
September	2 14	1 22	1 08	3 35	0 57	21 13	0 N06	6 S11	0 N14	1 N25
October	2 13	2 47	1 05	6 01	1 15	16 38	1 S47	19 42	3 S25	15 S29
November	2 14	4 13	1 05	8 31	1 35	10 40	3 19	26 40	2 N03	5 58
December	2 N19	5 S21	1 N07	10 S42	1 N56	4 N42	2 S57	24 S12	0 S08	20 S58

Year	Uranus		Neptune		Pluto	
	Lat.	Decli	Lat.	Decli	Lat.	Decli
1971	0°N41′	4°S40′	1°N39′	18°S38′	16°N03′	14°N48′
1972	0 39	6 29	1 36	19 24	16 15	14 05
1973	0 37	8 16	1 35	19 48	16 26	13 20
1974	0 35	9 59	1 36	20 10	16 37	12 33
1975	0 32	11 36	1 31	20 31	16 45	11 53
1976	0 29	13 11	1 29	20 49	16 52	10 55
1977	0 26	14 40	1 27	21 07	16 58	10 04
1978	0 23	16 03	1 25	21 22	17 00	9 12
1979	0 20	17 20	1 23	21 36	17 02	8 18
1980	0 17	18 31	1 20	21 47	17 02	7 23
1981	0 N13	19 S35	1 N18	21 S58	17 N00	6 N28

SAYANA TRANSIT OF SUN

(Sun's entry into Tropical Signs or Sayana Rasis)

Time given in I. S. T.

Sign	1971			1973			1975			1977		
		d	*h*		*d*	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	20	22 7	Jan.	20	10·3	Jan.	20	22·1	Jan.	20	9·8
Pisces	Feb.	19	13·0	Feb.	19	0·5	Feb.	19	12·3	Feb.	18	24·0
Aries	Mar.	21	12·1	Mar.	20	23·7	Mar.	21	11·5	Mar.	20	23·2
Taurus	Apr.	20	23·4	Apr.	20	11·0	Apr.	20	22·6	Apr.	20	10·5
Gemini	May	21	22·8	May	21	10·4	May	21	21·9	May	21	9·7
Cancer	June	22	6·8	June	21	18·5	June	22	5·9	June	21	17·7
Leo	July	23	17·8	July	23	5·4	July	23	16·9	July	22	28·6
Virgo	Aug.	24	0·8	Aug.	23	12·4	Aug.	23	23·9	Aug.	23	11·5
Libra	Sept.	23	22·3	Sept.	23	9 9	Sept.	23	21·4	Sept.	23	9·0
Scorpio	Oct.	24	7·4	Oct.	23	19·0	Oct.	24	6·6	Oct.	23	18 2
Sagittarius	Nov.	23	4·7	Nov.	22	16·4	Nov.	23	4 0	Nov.	22	15·6
Capricorn	Dec.	22	17·9	Dec.	22	5·6	Dec.	22	17·3	Dec.	21	28·9
	1972			1974			1976			1978		
		d	*h*		*d*	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	21	4·5	Jan.	20	16·3	Jan.	21	3·9	Jan.	20	15·6
Pisces	Feb.	19	18·7	Feb.	19	6·5	Feb.	19	18·2	Feb.	19	5·9
Aries	Mar.	20	17·9	Mar.	21	5·6	Mar.	20	17·3	Mar.	20	29·1
Taurus	Apr.	20	5·1	Apr.	20	16·8	Apr.	20	4·6	Apr.	20	16·3
Gemini	May	21	4·5	May	21	16·1	May	21	3·9	May	21	15·6
Cancer	June	21	12·6	June	22	0·1	June	21	11·9	June	21	23·7
Leo	July	22	23·6	July	23	11·0	July	22	22·8	July	23	10·5
Virgo	Aug.	23	6·6	Aug.	23	18·0	Aug.	23	5 8	Aug.	23	17·5
Libra	Sept.	23	4·1	Sept.	23	15·5	Sept.	23	3·3	Sept.	23	14·9
Scorpio	Oct.	23	13·2	Oct.	24	0·7	Oct.	23	12·5	Oct.	23	24·1
Sagittarius	Nov.	22	10·6	Nov.	22	22·2	Nov.	22	9·9	Nov.	22	21·6
Capricorn	Dec.	21	23·7	Dec.	22	11·4	Dec.	21	23·1	Dec.	22	10·9

Sign	1979			1980			1981		
		d	*h*		*d*	*h*		*d*	*h*
Aquarius	Jan.	20	21 5	Jan.	20	27·3	Jan.	20	9·1
Pisces	Feb.	19	11·7	Feb.	19	17·5	Feb.	18	23·4
Aries	Mar.	21	10·9	Mar.	20	16·7	Mar.	20	22·6
Taurus	Apr.	20	22·1	Apr.	19	27·9	Apr.	20	9·8
Gemini	May	21	21·4	May	20	27·2	May	21	9·2
Cancer	June	21	29·4	June	21	21·3	June	21	17·3
Leo	July	23	16·3	July	22	22·2	July	22	28·2
Virgo	Aug.	23	23·3	Aug.	22	29 2	Aug.	23	11·1
Libra	Sept.	23	20·8	Sept.	22	26·7	Sept.	23	8·6
Scorpio	Oct.	24	6 0	Oct.	22	11·8	Oct.	22	17·7
Sagittarius	Nov.	22	27·4	Nov.	22	9·2	Nov.	22	15·1
Capricorn	Dec.	22	16·7	Dec.	21	22·4	Dec.	21	28·4

Example of Moon's Latitude

Find the latitude of Moon at 5-30 A.M. on 1st March, 1972.

At the epoch Moon = 4s26°52′, Rahu = 9s11°26′. ∴ Moon − Rahu = 7s15°26 = 225°26′. Against this figure the latitude is obtained from the table on page 82 as 3° 40′S approximately (actual value is 3° 42′S).

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0′S	360°	45°	N3° 38′S	315°	90°	N5° 9′S	270°	135°	N3° 38′S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declination of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North; if greater than 180° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.
0°	0° 0′	180°	23°	8° 57′	157°	46°	16° 39′	134°	69°	21° 49′	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	60	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

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Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, the true decli. = decli. of place + reduced lat.
If lat. is South, the true decli. = decli. of place − reduced lat.

When declination of Place is South—

If lat. is North, the true decli. = decli of place − reduced lat.
If lat. is South, the true decli. = decli of place + reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
°	°	°	°		°	°	°	°	
0	180	180	360	0·917	50	130	230	310	0·963
10	170	190	350	0·920	60	120	240	300	0·978
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

EXAMPLE :—Find the declination of Moon on 1st Mar. 1972. N. long. of Moon on that date = 4s 26° 52′. *Ayanamsa* = 23° 28′. Therefore trop. long. = 5s 20° 20′ = 170° 20′. Now the *declination of place* is found to be 3° N 50′ and the *multiplier* is found from the above table as 0·920. The latitude of Moon on that date is 3°S42′ = 222′. This multiplied by ·920 gives 204′ = 3°24′S. Here we get declination of place as north and the latitude as south. Hence the true declination = 3°50′ − 3°24′ = 0°26′ North (This agrees with the actual value).

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ⊙. If ☽ − ⊙ is less than 12°, the 1st *tithi* of the light half (*Sukla paksha*) is then current. This *tithi* will remain current until ☽ − ⊙ becomes exactly 12° degrees. So for other *tithis* also.

The following table shows the long. of ☽ − ⊙ indicating the end of each *tithi*. If ☽ − ⊙ is greater than 6 signs, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half (*Krishna paksha*) of the month.

☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi	☽ − ⊙		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Entrance of Planets into Nirayana Signs

MARS

Enters :—	*d*	*m*	*y*	*d*	*m*	*y*	*d*	*m*	*y*	*d*	*m*	*y*	*d*	*m*	*y*	*d*	*m*	*y*	*d*	*m*	*y*
Mesha				31	1	72	30	7	73	22	6	75	28	5	77	7	5	79	16	4	81
Vrisha				17	3	72	15	2	74	4	8	75	8	7	77	17	6	79	27	5	81
,,					—			—		14	12	75		—			—			—	
Mithuna				2	5	72	9	4	74	28	9	75	21	8	77	29	7	79	8	7	81
,,					—			—		2	3	76	16	2	78		—			—	
Karkata				18	6	72	29	5	74	4	5	76	12	10	77	14	9	79	23	8	81
,,					—			—			—		17	3	78		—			—	
Simha				4	8	72	17	7	74	26	6	76	2	6	78	6	11	79	10	10	81
Kanya				20	9	72	2	9	74	14	8	76	24	7	78	28	6	80	2	12	81
Tulā				6	11	72	18	10	74	29	9	76	10	9	78	19	8	80			
Vṛścika	12	1	71	21	12	72	1	12	74	11	11	76	24	10	78	3	10	80			
Dhanus	1	3	71	2	2	73	12	1	75	23	12	76	4	12	78	13	11	80			
Makara	21	4	71	17	3	73	22	2	75	1	2	77	12	1	79	22	12	80			
Kumbha	24	10	71	28	4	73	3	4	75	11	3	77	19	2	79	29	1	81			
Mina	10	12	71	11	6	73	12	5	75	19	4	77	29	3	79	8	3	81			

JUPITER

Enters :—			*Enters* :—		
Dhanus	on	Jan. 6, 1972	Vṛṣa	on	July 8, 1976
Makara	,,	Jan. 25, 1973	Mesa R	,,	Dec. 8, 1976
Kumbha	,,	Feb. 9, 1974	Vṛṣa	,,	Feb. 22, 1977
Mina	,,	Feb. 19, 1975	Mithuna	,,	July 18, 1977
Mesha	,,	July 18, 1975	Karkaṭa	,,	Aug. 5, 1978
Mina R	,,	Sept. 10, 1975	Simha	,,	Aug. 29, 1979
Meṣa	,,	Feb. 25, 1976	Kanyā	,,	Sept. 26, 1980
			Tulā	,,	Oct. 27, 1981

SATURN

Enters :—			*Enters* :—		
Vṛṣa	on	Apr. 28, 1971	Simha	on	Sept. 7, 1977
Mithuna	,,	June 10, 1973	Kanya	,,	Nov. 3, 1979
Karkata	,,	July 23, 1975	Simha R	,,	Mar. 14, 1980
			Kanya	,,	July 27, 1980

URANUS

Enters :—			*Enters* :—		
Tula	on	Nov. 18, 1973	Tula R	on	May 13, 1980
Vriscika	on	Dec. 22, 1979	Vriscika	,,	Oct. 10, 1980

NEPTUNE—Remains in Vrischika from 1971 to Jan. 16, 1981 enters Dhanus on Jan. 16, 1981, enters Vriscika R on June 10, 1981, enters Dhanus on Nov. 20, 1981.

PLUTO in Kanya enters Tula on Dec. 6, 1980 enters Kanya R on Mar. 21, 1981 and Tula on Sept. 30, 1981

RAHU (True)

Enters :—			*Enters* :—		
Makara	on	Mar. 13, 1971	Kanyā	on	May 29, 1977
Dhanus	,,	Sept. 27, 1972	Simha	,,	Dec. 2, 1978
Vṛścika	,,	Mar. 18, 1974	Karkaṭa	,,	May 24, 1980
Tulā	,,	Sept. 18, 1975	Mithuna	,,	Nov. 25, 1981

LUNAR ECLIPSES

(The timings are given in Indian Standard Time)

Date	Middle of eclipse	Eclipse begins	Totality begins	Totality ends	Eclipse ends	Visibility in India
	h m	h m	h m	h m	h m	
1971 Feb. 10T	13 15	11 22	12 33	13 56	15 07	Invisible
,, Aug. 6T	25 13	23 25	24 23	26 03	27 01	Visible
1972 Jan. 30T	16 23	14 41	16 05	16 42	18 05	Partly Visible
,, July 26P	12 46	11 25	—	—	14 06	Invisible
1973 Dec. 10P	7 14	6 39	—	—	7 50	Partly Visible
1974 June 4P	27 46	26 09	—	—	29 23	Partly Visible
,, Nov. 29T	20 43	18 59	20 05	21 22	22 28	Visible
1975 May 25T	11 18	9 30	10 34	12 03	13 06	Invisible
,, Nov. 18T	27 54	26 09	27 33	28 14	29 38	Visible
1976 May 13P	25 24	24 46	—	—	26 03	Visible
1977 Apr. 4P	9 48	9 00	—	—	10 36	Invisible
1978 Mar. 24T	21 52	20 03	21 07	22 38	23 42	Visible
,, Sept. 16T	24 31	22 50	23 54	25 14	26 18	,,
1979 Mar. 13P	26 38	24 59	—	—	28 17	,,
,, Sept. 6T	16 24	14 48	16 01	16 47	18 01	Partly Visible
1980	—	—	—	—	—	—
1981 July 17P	10 17	8 55	—	—	11 39	Invisible

T = Total lunar eclipse P = Partial lunar eclipse

SOLAR ECLIPSES

(Given in Indian Standard Time)

Date	Middle of eclipse	Eclipse begins	Totality or Annu. begins	Totality or Annu. ends	Eclipse ends	Visibility in India
	h m	h m	h m	h m	h m	
1971 Feb. 25 P	15 07	13 19	—	—	16 56	Invisible
,, July 22 P	15 01	14 22	—	—	15 41	,,
,, Aug. 21 P	4 09	2 22	—	—	5 55	,,
1972 Jan. 16 R	16 33	14 15	15 55	17 11	18 50	,,
,, July 10 T	25 03	22 49	23 59	26 33	27 43	,,
1973 Jan. 4 R	21 16	18 14	19 23	23 09	24 17	,,
,, June 30 T	17 08	14 31	15 25	18 51	19 45	Partly visible
,, Dec. 24 R	20 32	17 31	18 44	22 20	23 33	Invisible
1974 June 20 T	10 17	8 30	9 19	11 16	12 32	,,
,, Dec. 13 P	21 43	19 33	—	—	23 52	,,
1975 May 11 P	12 47	10 39	—	—	14 55	,,
,, Nov. 3 P	18 45	16 45	—	—	20 45	,,
1976 Apr. 29 R	15 54	12 52	14 02	17 45	18 55	Visible
,, Oct. 23 T	10 43	8 09	9 06	12 20	13 17	Partly visible
1977 Apr. 18 R	16 01	13 03	14 13	17 49	18 59	Visible
,, Oct. 12 T	25 57	23 18	24 19	27 35	28 36	Invisible
1978 Apr. 7 P	20 33	18 22	—	—	22 34	,,
,, Oct. 2 P	11 58	10 01	—	—	13 55	,,
1979 Feb. 26 T	22 24	20 15	21 39	23 09	24 33	,,
,, Aug. 22 R	22 52	20 25	22 21	23 22	25 18	,,
1980 Feb. 16 T	14 23	11 45	12 42	16 04	17 01	Visible
,, Aug. 10 R	24 41	21 44	22 49	26 34	27 39	Invisible
1981 Feb. 5 R	3 39	0 58	2 03	5 14	6 19	,,
,, July 31 T	9 16	6 41	7 48	10 44	11 50	Visible

T = Total solar eclipse R = Annular solar eclipse P = Partial solar eclipse

Motion of planets:

Movement of the Sun and planets (except Mercury) from 5-30 a.m. of the preceding given date up to the desired moment can be found from the following table according to the motion for 2 days obtained from the ephemeris

Day and Time (I.S.T.)		Motion for 2 days								
		10′	20′	30′	40′	50′	1°-00′	1°-30′	2°-00′	2°-30′
Given date	5-30 a.m.	0	0	0	0	0	0 00	0 00	0 00	0 00
,, ,,	11-30 a.m.	1	2	4	5	6	0 08	0 12	0 15	0 19
,, ,,	5-30 p.m.	3	5	8	10	12	0 15	0 23	0 30	0 38
,, ,,	11-30 p.m.	4	7	11	15	19	0 23	0 34	0 45	0 56
2nd day	5-30 a.m.	5	10	15	20	25	0 30	0 45	1 00	1 15
,, ,,	11-30 a.m.	6	12	19	25	31	0 38	0 57	1 15	1 34
,, ,,	5-30 p.m.	8	15	23	30	38	0 45	1 08	1 30	1 53
,, ,,	11-30 p.m.	9	17	26	35	44	0 53	1 19	1 45	2 11
3rd day	5-30 a.m.	10	20	30	40	50	1 00	1 30	2 00	2 30
Motion for 3 hrs.		1	1	2	2	3	4	6	7	10

Motion of Moon

Movement of the Moon up to the desired moment from 5-30 A.M. of the given date can be found according to its daily motion obtained from the ephemeris

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0′	15° 30′
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
5 30 a.m.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 56
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 a.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 p.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 49
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 p.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 a.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 a.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Rahu, Uranus, Neptune and Pluto

Motion for 30 days distributed

Day	20′	40′	1°–0′	1°–30′	1°–35′	1°–40′	2°–0′	2°–30′	3°–0′	3°–30′
2	1′	3′	4′	6′	6′	7′	8′	10′	12′	14′
4	3	5	8	12	13	13	16	20	24	28
6	4	8	12	18	19	20	24	30	36	42
8	5	11	16	24	25	27	32	40	48	56
10	7	13	20	30	32	33	40	50	1– 0	1–10
15	10	20	30	45	48	50	1– 0	1–15	1–30	1–45
20	13	27	40	1– 0	1– 3	1– 7	1–20	1–40	2– 0	2–20
25	17	33	50	1–15	1–19	1–23	1–40	2– 5	2–30	2–55
30	20	40	60	1–30	1–35	1–40	2– 0	2–30	3– 0	3–30

Longitudes of Planets at the given time

The longitudes of planets (including Sun and Moon) required for any given moment can be calculated from those provided in the ephemeris for the two epochs one preceding and the other following the given moment, by utilising the motion for 2 days (one day in case of Mercury and also of Moon) obtained from the ephemeris by subtraction. In the calculation, the tables given on the previous page may be used, or to be more accurate, the two logarithmic tables given at the end of the book may be utilised.

For the longitude of the Moon (and also of Mercury) the logarithmic calculation is to be done with the help of Table I alone but for other planets both Tables I and II will have to be used. Example for finding the moon's longitude by Prop. Logarithm has been given at the bottom of Table I on page 97. The use of the table in case of other planets is illustrated below.

Example I—Find the long. of Sun on Aug. 15, 1973 at *h* 0-30 A.M. (i.e after midnight of Aug. 14). Long. of Sun on Aug. 13, 1973, 5-30 A.M. = $3^{s}\ 26^{\circ}\ 37'$; motion in next two days $1^{\circ}55'$, its log from Table I = 1·0977. Aug. 15th is the third day from Aug. 13. So from Table II under column third day or next given date and against the given time 0-30 A.M. the log is found to be ·0478. The sum of these two logarithms is 1·1455, which is the logarithm of $1^{\circ}43'$ nearly (from Table I). Hence the required longitude of Sun is $3^{s}26^{\circ}37' + 1^{\circ}43' = 3^{s}28^{\circ}20'$. In the same way the longitudes of Saturn, Jupiter, Mars and Venus can be obtained.

For Mercury the calculation is slightly different. For example let us find the long. of Mercury on Aug. 16, 1975, at 3-0 P.M. The longitude has been given for Aug. 16 ($=4^{s}\ 13^{\circ}\ 13'$) and for Aug. 17 ($=4^{s}\ 14^{\circ}\ 58'$). Hence the motion for 1 day = $1^{\circ}\ 45'$; its log is 1·1372 (Table I). From Table II in the portion for Mercury, log given date 3-0 P.M. = ·4025. Sum of these two is 1·5397, which is the log of $0^{\circ}42'$ (Table I). Hence the required long. of Mercury is $4^{s}\ 13^{\circ}\ 13 + 0^{\circ}42' = 4^{s}13^{\circ}55'$

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon s	°	′	Krittikādi Daśā	y	m	d	Ardrādi Daśā	y	m	d
1 Aśvinī	0	0	0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0	13	20		5	3	0		3	0	0
3 Kṛttikā	0	26	40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1	10	0		4	0	0		14	0	0
5 Mṛgaśiras	1	23	20		2	0	0		7	0	0
6 Ārdrā	2	6	40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2	20	0		11	3	0		4	6	0
8 Puṣya	3	3	20		7	6	0		3	0	0
9 Āśleṣā	3	16	40		3	9	0		1	6	0
10 Maghā	4	0	0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4	13	20		5	4	0		10	0	0
12 U. Phalguni	4	26	40		2	8	0		5	0	0
13 Hasta	5	10	0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5	23	20		12	9	0		6	0	0
15 Svātī	6	6	40		8	6	0		4	0	0
16 Viśākhā	6	20	0		4	3	0		2	0	0
17 Anurādha	7	3	20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7	16	40		6	8	0		11	4	0
19 Mūla	8	0	0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8	13	20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8	26	40		12	8	0		6	8	0
22 Sravaṇa	9	10	0		6	4	0		3	4	0
23 Dhaniṣṭhā	9	23	20	Rahu	12	0	0	Jupiter	19	0	0
24 Satabhiṣaj	10	6	40		8	0	0		12	8	0
25 P. Bhadrapada	10	20	0		4	0	0		6	4	0
26 U. Bhādrapadā	11	3	20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11	16	40		15	9	0		9	0	0
1 Asvinī	12	0	0		10	6	0		6	0	0

Proportional Parts for Dasa of Planets

(To be subtracted from the balance of dasa given above)

Long. of Moon		Sun (6y)		Moon (15y)		Mars (8y)		Mercury (17y)		Saturn (10y)		Jupiter (19y)		Rahu (12y)		Venus (21y)	
Krittikadi		m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0°	10′	0	9·0	0	16·9	0	12·0	0	19·1	0	15·0	0	28·5	0	18·0	0	23·6
1	0	1	24·0	3	11·3	2	12·0	3	24·6	3	0·0	5	21·0	3	18·0	4	21·8
1	20	2	12·0	4	15·0	3	6·0	5	3·0	4	0·0	7	18·0	4	24·0	6	9·0
4	0	7	6·0	13	15·0	9	18 0	15	9·0	12	0·0	22	24·0	14	12 0	18	27·0
13	20	24	0·0	45	0·0	32	0·0	51	0·0	40	0·0	76	0·0	48	0·0	63	0·0
Nakshatras		3, 4, 5		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2	
Ardradi		m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0°	10′	0	6·8	0	22·5	0	9·0	0	25·5	0	15 0	0	28.5	0	13.5	1	1·5
1	0	1	10·5	4	15·0	1	24·0	5	3·0	3	0·0	5	21.0	2	21.0	6	9·0
1	20	1	24·0	6	0·0	2	12·0	6	24·0	4	0·0	7	18·0	3	18.0	8	12·0
4	0	5	12·0	18	0·0	7	6·0	20	12·0	12	0·0	22	24·0	10	24.0	25	6·0
13	20	18	0·0	60	0·0	24	0·0	68	0·0	40	0·0	76	0·0	36	0.0	84	0·0
Nakshatras		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2		3,4,5	

ASTOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—15						Mars (Mangala)—8							
	Sub Periods			Total			Sub Periods			Total			Sub Periods				Total			
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	h	y	m	d	h
Sun	0	4	0	0	4	0		—			—				—				—	
Moon	0	10	0	1	2	0	2	1	0	2	1	0			—				—	
Mars	0	5	10	1	7	10	1	1	10	3	2	10	0	7	3	8	0	7	3	8
Mercury	0	11	10	2	6	20	2	4	10	5	6	20	1	3	3	8	1	10	6	16
Saturn	0	6	20	3	1	10	1	4	20	6	11	10	0	8	26	16	2	7	3	8
Jupiter	1	0	20	4	2	0	2	7	20	9	7	0	1	4	26	16	4	0	0	0
Rahu	0	8	0	4	10	0	1	8	0	11	3	0	0	10	20	0	4	10	20	0
Venus	1	2	0	6	0	0	2	11	0	14	2	0	1	6	20	0	6	5	10	0
Sun		—			—		0	10	0	15	0	0	0	5	10	0	6	10	20	00
Moon		—			—			—			—		1	1	10	0	8	0	0	0

DASA

Antardaśā	Mercury (Budha)—17								Saturn (Sani)—10							
	Sub Periods				Total				Sub Periods				Total			
	y	m	d	h	y	m	d	h	y	m	d	h	y	m	d	h
Mercury	2	8	3	8	2	8	3	8		—				—		
Saturn	1	6	26	16	4	3	0	0	0	11	3	8	0	11	3	8
Jupiter	2	11	26	16	7	2	26	16	1	9	3	8	2	8	6	16
Rahu	1	10	20	0	9	1	16	16	1	1	10	0	3	9	16	16
Venus	3	3	20	0	12	5	6	16	1	11	10	0	5	8	26	16
Sun	0	11	10	0	13	4	16	16	0	6	20	0	6	3	16	16
Moon	2	4	10	0	15	8	26	16	1	4	20	0	7	8	6	16
Mars	1	3	3	8	17	0	0	0	0	8	26	16	8	5	3	8
Mercury		—				—			1	6	26	16	10	0	0	0

DASA

Antardaśā	Jupiter (Brihaspati)—19								Rahu—12						Venus (Sukra)—21					
	Sub Periods				Total				Sub Periods			Total			Sub Periods			Total		
	y	m	d	h	y	m	d	h	y	m	d	y	m	d	y	m	d	y	m	d
Jupiter	3	4	3	8	3	4	3	8		—			—			—			—	
Rahu	2	1	10	0	5	5	13	8	1	4	0	1	4	0		—			—	
Venus	3	8	10	0	9	1	23	8	2	4	0	3	8	0	4	1	0	4	1	0
Sun	1	0	20	0	10	2	13	8	0	8	0	4	4	0	1	2	0	5	3	0
Moon	2	7	20	0	12	10	3	8	1	8	0	6	0	0	2	11	0	8	2	0
Mars	1	4	26	16	14	3	0	0	0	10	20	6	10	20	1	6	20	9	8	20
Mercury	2	11	26	16	17	2	26	16	1	10	20	8	9	10	3	3	20	13	0	10
Saturn	1	9	3	8	19	0	0	0	1	1	10	9	10	20	1	11	10	14	11	20
Jupiter		—				—			2	1	10	12	0	0	3	8	10	18	8	0
Rahu		—				—				—			—		2	4	0	21	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon	*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
° '		y	m	d		y	m	d		y	m	d		y	m	d
0 0	Ketu	7	0	0	Sun	4	6	0	Mars	3	6	0	Jupiter	4	0	0
0 20		6	9	27		4	4	6		3	3	27		3	7	6
0 40		6	7	24		4	2	12		3	1	24		3	2	12
1 0		6	5	21		4	0	18		2	11	21		2	9	18
1 20		6	3	18		3	10	24		2	9	18		2	4	24
1 40		6	1	15		3	9	0		2	7	15		2	0	0
2 0		5	11	12		3	7	6		2	5	12		1	7	6
2 20		5	9	9		3	5	12		2	3	9		1	2	12
2 40		5	7	6		3	3	18		2	1	6		0	9	18
3 0		5	5	3		3	1	24		1	11	3		0	4	24
3 20		5	3	0		3	0	0		1	9	0	Saturn	19	0	0
3 40		5	0	27		2	10	6		1	6	27		18	6	9
4 0		4	10	24		2	8	12		1	4	24		18	0	18
4 20		4	8	21		2	6	18		1	2	21		17	6	27
4 40		4	6	18		2	4	24		1	0	18		17	1	6
5 0		4	4	15		2	3	0		0	10	15		16	7	15
5 20		4	2	12		2	1	6		0	8	12		16	1	24
5 40		4	0	9		1	11	12		0	6	9		15	8	3
6 0		3	10	6		1	9	18		0	4	6		15	2	12
6 20		3	8	3		1	7	24		0	2	3		14	8	21
6 40		3	6	0		1	6	0	Rahu	18	0	0		14	3	0
7 0		3	3	27		1	4	6		17	6	18		13	9	9
7 20		3	1	24		1	2	12		17	1	6		13	3	18
7 40		2	11	21		1	0	18		16	7	24		12	9	27
8 0		2	9	18		0	10	24		16	2	12		12	4	6
8 20		2	7	15		0	9	0		15	9	0		11	10	15
8 40		2	5	12		0	7	6		15	3	18		11	4	24
9 0		2	3	9		0	5	12		14	10	6		10	11	3
9 20		2	1	6		0	3	18		14	4	24		10	5	12
9 40		1	11	3		0	1	24		13	11	12		9	11	21
10 0		1	9	0	Moon	10	0	0		13	6	0		9	6	0
10 20		1	6	27		9	9	0		13	0	18		9	0	9
10 40		1	4	24		9	6	0		12	7	6		8	6	18
11 0		1	2	21		9	3	0		12	1	24		8	0	27
11 20		1	0	18		9	0	0		11	8	12		7	7	6
11 40		0	10	15		8	9	0		11	3	0		7	1	15
12 0		0	8	12		8	6	0		10	9	18		6	7	24
12 20		0	6	9		8	3	0		10	4	6		6	2	3
12 40		0	4	6		8	0	0		9	10	24		5	8	12
13 0		0	2	3		7	9	0		9	5	12		5	2	21
13 20	Venus	20	0	0		7	6	0		9	0	0		4	9	0
13 40		19	6	0		7	3	0		8	6	18		4	3	9
14 0		19	0	0		7	0	0		8	1	6		3	9	18
14 20		18	6	0		6	9	0		7	7	24		3	3	27
14 40		18	0	0		6	6	0		7	2	12		2	10	6
15 0		17	6	0		6	3	0		6	9	0		2	4	15
15 20		17	0	0		6	0	0		6	3	18		1	10	24
15 40		16	6	0		5	9	0		5	10	6		1	5	3
16 0		16	0	0		5	6	0		5	4	24		0	11	12
16 20		15	6	0		5	3	0		4	11	12		0	5	21
16 40		15	0	0		5	0	0		4	6	0	Mercur.	17	0	0
17 0		14	6	0		4	9	0		4	0	18		16	6	27
17 20		14	0	0		4	6	0		3	7	6		16	1	24
17 40		13	6	0		4	3	0		3	1	24		15	8	21
18 0		13	0	0		4	0	0		2	8	12		15	3	18
18 20		12	6	0		3	9	0		2	3	0		14	10	15
18 40		12	0	0		3	6	0		1	9	18		14	5	12
19 0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimsottari Dasa—contd.

Long of Moon	Moon in Meṣa, Simha, Dhanus				Moon in Vṛṣa, Kanyā, Makara				Moon in Mithuna, Tula, Kumbha				Moon in Karkaṭa Vṛścika, Mina			
° ′		y	m	d		y	m	d		y	m	d		y	m	d
19 0	VENUS	11	6	0	MOON	3	3	0	RAHU	1	4	6	MERC.	14	0	9
19 20		11	0	0		3	0	0		0	10	24		13	7	6
19 40		10	6	0		2	9	0		0	5	12		13	2	3
20 0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20 20		9	6	0		2	3	0		15	7	6		12	3	27
20 40		9	0	0		2	0	0		15	2	12		11	10	24
21 0		8	6	0		1	9	0		14	9	18		11	5	21
21 20		8	0	0		1	6	0		14	4	24		11	0	18
21 40		7	6	0		1	3	0		14	0	0		10	7	15
22 0		7	0	0		1	0	0		13	7	6		10	2	12
22 20		6	6	0		0	9	0		13	2	12		9	9	9
22 40		6	0	0		0	6	0		12	9	18		9	4	6
23 0		5	6	0		0	3	0		12	4	24		8	11	3
23 20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23 40		4	6	0		6	9	27		11	7	6		8	0	27
24 0		4	0	0		6	7	24		11	2	12		7	7	24
24 20		3	6	0		6	5	21		10	9	18		7	2	21
24 40		3	0	0		6	3	18		10	4	24		6	9	18
25 0		2	6	0		6	1	15		10	0	0		6	4	15
25 20		2	0	0		5	11	12		9	7	6		5	11	12
25 40		1	6	0		5	9	9		9	2	12		5	6	9
26 0		1	0	0		5	7	6		8	9	18		5	1	6
26 20		0	6	0		5	5	3		8	4	24		4	8	3
26 40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27 0		5	10	6		5	0	27		7	7	6		3	9	27
27 20		5	8	12		4	10	24		7	2	12		3	4	24
27 40		5	6	18		4	8	21		6	9	18		2	11	21
28 0		5	4	24		4	6	18		6	4	24		2	6	18
28 20		5	3	0		4	4	15		6	0	0		2	1	15
28 40		5	1	6		4	2	12		5	7	6		1	8	12
29 0		4	11	12		4	0	9		5	2	12		1	3	9
29 20		4	9	18		3	10	6		4	9	18		0	10	6
29 40		4	7	24		3	8	3		4	4	24		0	5	3
30 0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7y)		Venus (20y)		Sun (6y)		Moon (10y)		Mars (7y)		Rāhu (18y)		Jupiter (16y)		Saturn (19y)		Merc. (17y)		
′	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

VIMSOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6		Moon (Chandra)—10		Mars (Mangala)—7	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Sun	0 3 18	0 3 18	—	—	—	—
Moon	0 6 0	0 9 18	0 10 0	0 10 0	—	—
Mars	0 4 6	1 1 24	0 7 0	1 5 0	0 4 27	0 4 27
Rahu	0 10 24	2 0 18	1 6 0	2 11 0	1 0 18	1 5 15
Jupiter	0 9 18	2 10 6	1 4 0	4 3 0	0 11 6	2 4 21
Saturn	0 11 12	3 9 18	1 7 0	5 10 0	1 1 9	3 6 0
Mercury	0 10 6	4 7 24	1 5 0	7 3 0	0 11 27	4 5 27
Ketu	0 4 6	5 0 0	0 7 0	7 10 0	0 4 27	4 10 24
Venus	1 0 0	6 0 0	1 8 0	9 6 0	1 2 0	6 0 24
Sun	—	—	0 6 0	10 0 0	0 4 6	6 5 0
Moon	—	—	—	—	0 7 0	7 0 0

DASA

Antardaśā	Rahu—18		Jupiter (Brihaspati)—16		Saturn (Sani)—19	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Rahu	2 8 12	2 8 12	—	—	—	—
Jupiter	2 4 24	5 1 6	2 1 18	2 1 18	—	—
Saturn	2 10 6	7 11 12	2 6 12	4 8 0	3 0 3	3 0 3
Mercury	2 6 18	10 6 0	2 3 6	6 11 6	2 8 9	5 8 12
Ketu	1 0 18	11 6 18	0 11 6	7 10 12	1 1 9	6 9 21
Venus	3 0 0	14 6 18	2 8 0	10 6 12	3 2 0	9 11 21
Sun	0 10 24	15 5 12	0 9 18	11 4 0	0 11 12	10 11 3
Moon	1 6 0	16 11 12	1 4 0	12 8 0	1 7 0	12 6 3
Mars	1 0 18	18 0 0	0 11 6	13 7 6	1 1 9	13 7 12
Rahu	—	—	2 4 24	16 0 0	2 10 6	16 5 18
Jupiter	—	—	—	—	2 6 12	19 0 0

DASA

Antardaśā	Mercury (Budha)—17		Ketu—7		Venus (Sukra)—20	
	Sub Periods	Total	Sub Periods	Total	Sub Periods	Total
	y m d	y m d	y m d	y m d	y m d	y m d
Mercury	2 4 27	2 4 27	—	—	—	—
Ketu	0 11 27	3 4 24	0 4 27	0 4 27	—	—
Venus	2 10 0	6 2 24	1 2 0	1 6 27	3 4 0	3 4 0
Sun	0 10 6	7 1 0	0 4 6	1 11 3	1 0 0	4 4 0
Moon	1 5 0	8 6 0	0 7 0	2 6 3	1 8 0	6 0 0
Mars	0 11 27	9 5 27	0 4 27	2 11 0	1 2 0	7 2 0
Rahu	2 6 18	12 0 15	1 0 18	3 11 18	3 0 0	10 2 0
Jupiter	2 3 6	14 3 21	0 11 6	4 10 24	2 8 0	12 10 0
Saturn	2 8 9	17 0 0	1 1 9	6 0 3	3 2 0	16 0 0
Mercury	—	—	0 11 27	7 0 0	2 10 0	18 10 0
Ketu	—	—	—	—	1 2 0	20 0 0

Navamsa Signs and their Lords

NAVAMSAS

Sign	1st. 0° 0′ to 3°20′	2nd 3°20′ to 6°40′	3rd 6°40′ to 10°0′	4th 10°0′ to 13°20′	5th 13°20′ to 16°40′	6th 16°40′ to 20°0′	7th 20°0′ to 23°20′	8th 23°20′ to 26° 40	9th 26°40′ to 30°0′
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vriscika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Raśi) of Mesha, etc. The Lords of the navamsa signs are indicated by the planetary symbols.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakṣatra	Long. s ° ′	Vimśottarī Daśā	yrs.	Nakṣatra	Long. s ° ′	Vimśottarī Daśā	yrs.
1 Aśvinī	0 0 0	Ketu	7	15 Svātī	6 6 40	Rāhu	18
2 Bharaṇī	0 13 20	Venus	20	16 Viśākhā	6 20 0	Jupiter	16
3 Kṛttikā	0 26 40	Sun	6	17 Anurādhā	7 3 20	Saturn	19
4 Rohiṇī	1 10 0	Moon	10	18 Jyeṣṭhā	7 16 40	Mercury	17
5 Mṛgaśiras	1 23 20	Mars	7	19 Mūla	8 0 0	Ketu	7
6 Ārdrā	2 6 40	Rāhu	18	20 Pūrvāṣāḍhā	8 13 20	Venus	20
7 Punarvasu	2 20 0	Jupiter	16	21 Uttarāṣāḍhā	8 26 40	Sun	6
8 Puṣya	3 3 20	Saturn	19	22 Sravaṇa	9 10 0	Moon	10
9 Āśleṣā	3 16 40	Mercury	17	23 Dhaniṣṭhā	9 23 20	Mars	7
10 Maghā	4 0 0	Ketu	7	24 Śatabhiṣaj	10 6 40	Rāhu	18
11 P. Phalgunī	4 13 20	Venus	20	25 P.Bhādrapad	10 20 0	Jupiter	16
12 U. Phalgunī	4 26 40	Sun	6	26 U.Bhādrapad	11 3 20	Saturn	19
13 Hasta	5 10 0	Moon	10	27 Revatī	11 16 40	Mercury	17
14 Citrā	5 23 20	Mars	7	1 Aśvinī	12 0 0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

SUNRISE AND SUNSET

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the Indian Ephemeris and deduct it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is almost the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs, 8yrs, 12yrs., etc., and again after 21yrs., 25yrs., 29yrs., 33yrs., 37yrs., 41yrs., 45yrs.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T.+11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 28′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
January 1	6 15	5 51	6 26	5 41	6 37	5 30	6 50	5 17	6 57	5 11
5	17	53	27	43	38	32	51	19	57	14
9	18	56	29	45	39	35	52	22	58	17
13	20	5 58	29	48	39	38	52	25	58	20
17	21	6 0	30	50	40	40	52	28	58	23
21	21	1	31	52	40	43	51	31	57	26
25	22	3	31	54	40	45	50	34	55	30
29	22	4	30	56	39	47	49	37	54	33
Febry. 2	6 22	6 5	6 30	5 58	6 38	5 50	6 47	5 40	6 52	5 36
6	22	6	29	5 59	36	52	45	43	49	40
10	22	7	28	6 1	35	54	43	46	47	43
14	21	8	27	2	33	56	40	49	43	46
18	20	8	25	3	31	58	37	51	40	49
22	19	9	23	4	28	5 59	34	54	36	51
26	18	9	21	5	25	6 1	30	56	32	54
March 2	6 16	6 9	6 19	6 6	6 23	6 2	6 27	5 58	6 28	5 57
6	14	9	17	6	20	3	23	6 0	24	5 59
10	13	8	14	6	16	5	19	2	20	6 2
14	11	8	12	7	13	6	15	4	15	4
18	9	8	9	7	10	7	11	6	11	6
22	7	7	7	8	7	8	6	8	6	9
26	5	7	4	8	3	9	6 2	10	6 1	11
30	3	6	6 1	8	6 0	10	5 58	11	5 57	13
April 3	6 1	6 6	5 59	6 8	5 57	6 11	5 54	6 13	5 52	6 15
7	5 59	6	56	9	53	11	50	15	48	18
11	57	5	54	9	50	12	46	17	43	20
15	56	5	51	9	47	13	42	19	39	22
19	54	5	49	10	44	14	38	20	35	24
23	52	4	47	10	41	16	35	22	31	27
27	51	4	45	11	39	17	31	24	27	29
May 1	5 50	6 5	5 43	6 11	5 36	6 18	5 28	6 26	5 23	6 31
5	49	5	41	12	34	19	25	28	20	34
9	48	5	40	13	32	21	23	30	17	36
13	47	5	39	14	30	22	20	32	14	39
17	47	6	38	15	29	24	18	34	12	41
21	47	6	37	16	28	25	16	36	10	43
25	46	7	37	17	27	27	15	38	8	46
29	46	8	36	18	26	28	14	40	7	48
June 2	5 46	6 9	5 36	6 19	5 26	6 30	5 13	6 42	5 6	6 50
6	47	10	36	20	26	31	13	44	5	52
10	47	11	37	22	26	33	13	46	5	54
14	48	12	37	23	26	34	13	47	5	55
18	49	13	38	24	27	35	13	48	5	56
22	49	14	39	25	27	36	14	49	6	57
26	50	15	40	25	28	37	15	50	7	58
30	5 51	6 15	5 41	6 26	5 29	6 37	5 16	6 50	5 9	6 58

N.B.—To obtain Indian Standard Time of Sunrise and Sunset, apply to the above the difference between the standard time and the local time of the place. The I. S. T. corrections for the above places are given in brackets.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T. +11m)		Mad. Bang. 13° N 0′ (+9, +20m)		Bombay 18° N 58′ (+39m)		Allahabad 25° N 28′ (+3m)		Delhi 28° N 39′ (+21m)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
July 4	5 52	6 16	5 42	6 26	5 31	6 37	5 18	6 50	5 10	6 58
8	53	16	43	27	32	37	19	50	12	58
12	55	16	44	27	33	37	21	50	14	57
16	55	16	45	27	35	37	23	49	16	56
20	56	16	46	26	36	36	25	48	18	54
24	56	16	47	26	38	35	26	46	20	53
28	57	16	48	25	39	34	28	44	22	50
August 1	5 57	6 15	5 49	6 24	5 40	6 32	5 30	6 42	5 25	6 48
5	57	14	50	22	42	30	32	40	27	45
9	57	13	50	21	43	28	34	37	29	42
13	57	12	51	19	44	26	36	34	31	38
17	57	11	51	17	45	23	38	31	34	34
21	57	9	52	15	46	20	39	27	36	30
25	57	8	52	12	47	17	41	23	38	26
29	56	6	52	10	48	14	43	19	40	22
Septr. 2	5 56	6 4	5 52	6 7	5 49	6 11	5 44	6 15	5 42	6 17
6	55	2	52	5	50	8	46	11	44	13
10	55	6 0	52	6 2	50	4	47	7	46	8
14	54	5 58	52	5 59	51	6 1	49	6 3	48	6 3
18	53	55	52	56	52	5 57	50	5 58	50	5 58
22	53	53	52	53	52	54	52	54	52	54
26	52	51	53	51	53	50	54	50	54	49
30	52	49	53	48	54	47	55	45	56	44
October 4	5 51	5 47	5 53	5 45	5 55	5 43	5 57	5 41	5 58	5 40
8	51	45	53	43	56	40	5 59	37	6 0	35
12	50	43	53	40	57	37	6 0	33	2	31
16	50	41	54	38	58	34	2	29	5	26
20	50	40	54	36	5 59	31	5	25	7	22
24	50	39	55	34	6 0	28	7	22	10	18
28	50	38	56	32	2	26	9	19	13	15
Novr. 1	5 51	5 37	5 57	5 30	6 4	5 24	6 11	5 16	6 15	5 13
5	51	36	5 58	29	5	22	14	13	18	9
9	52	35	6 0	28	7	20	19	11	21	6
13	53	35	1	27	10	19	22	9	25	4
17	54	35	3	27	12	18	25	7	28	2
21	56	36	5	27	14	17	27	6	31	1
25	57	36	7	27	17	17	28	6	34	5 0
29	5 59	37	9	27	19	17	31	5	37	4 59
Decr. 3	6 1	5 38	6 11	5 28	6 21	5 18	6 34	5 5	6 40	4 59
7	3	40	13	29	24	19	37	6	43	5 0
11	5	41	15	31	26	20	40	6	46	0
15	7	43	18	32	29	21	42	7	49	2
19	9	45	20	34	31	23	44	9	51	3
23	11	47	22	36	33	25	46	11	53	5
27	13	49	24	38	35	27	48	13	55	7
31	6 15	5 51	6 25	5 40	6 37	5 29	6 50	5 16	6 56	5 10

Note :—These timings relate to the coincidence (astronomical or true) of the centre of the Sun with the horizon, without any correction for refraction. Correction for visibility of the upper limb : −3*m* for rise, +3*m* for set.

Proportional Logarithms for finding Planets' places

Min.	DEGREES OR HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	-	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1.6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1.6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1.6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1.5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1.5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1.5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1.5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1.5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1.5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1.4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1.4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1.4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1.4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3875	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1.0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Proportional Logarithms—contd.

Minute	13	14	15	16	17	18	19	20	21	22	23	Minute
	DEGREES OR HOURS											
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2151	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0857	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

***Rule:*—Add proportional log. of planet's daily motion to log of time from 5-30 A.M., I. S. T. and the sum will be the log. of the movement required. Add this movement to the given position of planet, if the time be after 5-30 A.M., but subtract if before, and the result will be the planet's true place at the given moment. (If retrograde subtract for add).**

***Example :*—Required longitude of Moon on 14th April 1974 at 1-23 A.M. I.S.T. Time from 5-30 A.M. (13th) is 19*h* 53*m*, log. of which=0·0817. Moon's daily motion is 11°53′, its log =0·3053. Sum of these two=0·3870 which is log of 9° 51′, the required movement. Hence the required longitude of Moon is 8s 11° 31′ + 9° 51′ = 8s 21° 22′, *i.e. Dhanus* 21°22′.**

Prop. Logarithms for finding Planets' Places—Table II

Log. of time interval from the given epoch.

Time (I.S.T.)	For all planets except Mercury & Moon			For Mercury & Moon	
	Given date	Second day	Next given date	Given date	Next day
h m					
0 00 A.M.		0·4141	0·0529		0·1130
0 03		·4025	·0478		·1015
1 00		·3912	·0428		·0902
1 03		·3802	·0378		·0792
2 00		·3695	·0329		·0685
2 30		·3590	·0280		·0580
3 00		·3488	·0232		·0478
3 30		·3388	·0185		·0378
4 00		·3291	·0138		·0280
4 30		·3195	·0091		·0185
5 00 A.M.		0·3102	0·0045		0·0091
5 30	∝	·3010	0·0000	∝	0·0000
6 00	1·9823	·2921		1·6812	
6 30	1·6812	·2833		1·3802	
7 00	1·5051	·2747		1·2041	
7 30	1·3802	·2663		1·0792	
8 00	1·2833	·2580		0·9823	
8 30	1·2041	·2499		·9031	
9 00	1·1372	·2419		·8361	
9 30	1·0792	·2341		·7781	
10 00 A.M.	1·0280	0·2264		0·7270	
10 30	0·9823	·2188		·6812	
11 00	·9409	·2114		·6398	
11 30	·9031	·2041		·6021	
12 00 (noon)	·8683	·1969		·5673	
12 30 P.M.	·8361	·1899		·5351	
1 00	·8062	·1829		·5051	
1 30	·7781	·1761		·4771	
2 00	·7518	·1694		·4508	
2 30	·7270	·1627		·4260	
3 00 P.M.	0·7035	0·1562		0·4025	
3 30	·6812	·1498		·3802	
4 00	·6601	·1434		·3590	
4 30	·6398	·1372		·3388	
5 00	·6205	·1310		·3195	
5 30	·6021	·1249		·3010	
6 00	·5843	·1189		·2833	
6 30	·5673	·1130		·2663	
7 00	·5509	·1072		·2499	
7 30	·5351	·1015		·2341	
8 00 P.M.	0·5199	0·0958		0·2188	
8 30	·5051	·0902		·2041	
9 00	·4909	·0846		·1899	
9 30	·4771	·0792		·1761	
10 00	·4638	·0738		·1627	
10 30	·4508	·0685		·1498	
11 00	·4382	·0632		·1372	
11 30	·4260	·0580		·1249	
12 00 (mid-night)	0·4141	0·0529		0·1130	

Rule **:—Prop. Log. of time from the above Table II is to be added to log. of planet's 2 days' or 1 day's motion as the case may be from Table I, and the result will be the log. (Tab. I) of planet's required movement up to the moment from the previous given epoch.**

Instructions for Erecting a Birth-Chart

At first obtain the date and time of birth and the name of the locality of birth i.e. the birth place. If time available be the local mean time of the place which was in vogue all over India before 1st January 1906, the same should be converted into the present I.S.T by applying properly the local time correction for the place of birth. From 1st September 1947 the use of L.M.T. was completely abandoned and I.S.T. was adopted for all places of India. In some cases the time of birth is supplied in ghati (danda and nadika) and vighati (pala or vinadika). In that case convert ghati, vighati into hours and minutes applying the relation that 24 minutes make one ghati and 24 secs. make one vighati and add the result to the sunrise time, or to the Sunset time when the ghati and vighati is given from sunset in case of birth in night. In this way the birth time is obtained in hours and minutes of the clock. But before that one should be sure, that the sunrise or sunset time available is not in L.M.T. nor in Local apparent time, but in I.S.T. In the former case obtain the sunrise time for the date and locality in question in I.S.T. by calculation and then obtain the birth time which is then in I.S.T. Conversion of time into L.M.T. and vice-versa into I.S.T. has been discussed in author's TABLES OF ASCENDANTS. Both L.M.T. and I.S.T. would be required in the preparation of horoscope, so keep both the times recorded in the working sheet. For the birth place obtain the latitude and longitude measured from Greenwich. If the exact value of these co-ordinate are not known, then work with those of the nearest city available. The longitude will be utilised in finding the local time of place and the latitude in determining the Lagna or Ascendant.

Many foreign countries keep SUMMER TIME, i.e. they advance their clocks by one hour during summer seasons. In that case the recorded birth time shoud be reduced by one hour to obtain local standard time of birth. From that obtain also I S.T. by correction given in Lahiri's Tables of Ascendants or Indian Ephemeris. From the same book calculate the Sidereal Time at birth and obtain the Ascendant or Lagna for the latitude of the place.

Then calculate the longitudes of planets. The longitudes are given in Signs (Rasis), degrees and minutes. 60 minutes make one degree and 30 degrees make one rasi. From I.S.T. obtained or derived for the birth time, calculate the longitudes of planet (*grahasphute*). The longitudes are given for 5-30 A.M. I.S.T. If the birth time be exactly 5-30 A.M. or very near to it, then take the given longitudes as those for birth. The method of calculating the longitudes for any hour of I.S.T. has been illustrated in the Example given in the Ephemeris. For this different tables have been given and the use of the log tables has also been illustrated.

Now the planets are to be placed in the birth chart. The first figure in the longitude of a planet indicates the Rasi or Sign. For example if it is zero, place the planet in Mesha or Aries, if 1 place it in Vrisha or Tauras, 2 in Mithuna or Gemini, 3 in Karkata or Cancer and so on. The Ascendant or Lagna will have to be placed in the birth chart in a similar way. This completes casting of the nativity. The *nakshatra* division in which the moon or the planet falls can be ascertaind from the table given for the purpose on page 93. The *tithi* at birth time can be determined from the defference of longitudes of the Moon and Sun utilising the table on p-83. For Yoga add the longitude of Sun to that of Moon and consult the table of nakshatra on page 93 from which the number of Yoga current at birth time would be obtained. Then the balance of dasa is to be calculated. For this take the longitude of Moon and enter the table on page 90 and find the balance of Vimsottari dasa at the time of birth. Then go on adding the period of dasa of subsequent planets to arrive at the present age. The longitude utilised for all the above purposes are the nirayana longitude as given in the Ephemeris. If ayanamsa is added to the nirayana longitude then the Sayana longitude of the planet will be obtained which are, however, not required in casting of a nativity in the Indian system.

— *FINIS* —

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ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

PART VIIA

COVERING FIVE YEARS

FROM 1981 TO 1985 A.D.

N. C LAHIRI

ASTRO-RESEARCH BUREAU
CALCUTTA.

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(*First Edition*)

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PREFACE

The present Condensed Ephemeris Part VII-A covering the years from 1981 to 1985 A.D. compiled from *Lahiri's Indian Ephemeris* is published in order to meet the demand from the public for copies of the Ephemeris for individual years subsequent to 1980 some of which have gone out of print.

The arrangement of this part follows that of Part VI and accordingly longitudes of planets have been given for alternate days i.e. at 2 days' interval and those of Moon and Mercury for every day. This would no doubt facilitate the work of its users in finding the planets' positions for the desired moment more easily. The longitudes are given for 5-30 A.M. I.S.T. as in previous issues.

CALCUTTA
Aug 15, 1985

A. K. LAHIRI

994085

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LOCAL MEAN TIME OF SUNRISE AND SUNSET

Date	Sunrise					Mid-day	Sunset				
	0°	10°	20°	30°	35°		0°	10°	20°	30°	35°
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	5 59	6 17	6 35	6 56	7 08	12 03	6 07	5 50	5 31	5 10	4 58
8	6 03	6 19	6 37	6 57	7 09	12 07	6 10	5 54	5 36	5 16	5 05
16	6 06	6 22	6 38	6 57	7 08	12 10	6 14	5 58	5 42	5 23	5 12
24	6 08	6 23	6 38	6 55	7 04	12 12	6 16	6 02	5 47	5 30	5 21
Feb. 1	6 10	6 23	6 36	6 51	6 59	12 14	6 18	6 05	5 52	5 37	5 29
9	6 11	6 21	6 33	6 45	6 53	12 14	6 18	6 07	5 56	5 44	5 36
17	6 11	6 19	6 28	6 38	6 45	12 14	6 18	6 09	6 00	5 50	5 44
25	6 10	6 16	6 23	6 31	6 35	12 13	6 17	6 10	6 03	5 56	5 52
Mar. 5	6 08	6 13	6 17	6 23	6 25	12 12	6 15	6 12	6 07	6 02	5 59
13	6 06	6 09	6 11	6 13	6 14	12 10	6 13	6 11	6 09	6 07	6 06
21	6 04	6 04	6 04	6 03	6 03	12 07	6 11	6 11	6 11	6 12	6 12
29	6 02	5 59	5 57	5 53	5 52	12 05	6 08	6 11	6 14	6 17	6 19
Apr. 6	5 59	5 55	5 50	5 44	5 40	12 03	6 06	6 11	6 16	6 21	6 25
14	5 57	5 50	5 43	5 35	5 30	12 00	6 04	6 11	6 18	6 26	6 31
22	5 55	5 46	5 37	5 26	5 20	11 59	6 02	6 11	6 20	6 31	6 38
30	5 54	5 43	5 32	5 19	5 11	11 57	6 01	6 11	6 23	6 36	6 44
May 8	5 53	5 41	5 27	5 12	5 03	11 56	6 00	6 12	6 26	6 41	6 50
16	5 53	5 39	5 21	5 06	4 56	11 56	6 00	6 14	6 29	6 47	6 57
24	5 53	5 38	5 21	5 02	4 51	11 57	6 00	6 16	6 33	6 52	7 03
June 1	5 54	5 38	5 20	4 59	4 47	11 58	6 01	6 18	6 36	6 56	7 08
9	5 55	5 38	5 20	4 58	4 46	11 59	6 03	6 20	6 39	7 00	7 13
17	5 57	5 39	5 20	4 58	4 45	12 01	6 04	6 22	6 41	7 03	7 16
25	5 59	5 41	5 22	5 00	4 47	12 02	6 06	6 24	6 43	7 05	7 18
July 3	6 01	5 43	5 24	5 03	4 51	12 04	6 08	6 25	6 43	7 05	7 18
11	6 03	5 45	5 27	5 06	4 54	12 05	6 09	6 25	6 43	7 04	7 16
19	6 03	5 47	5 30	5 11	4 59	12 06	6 10	6 25	6 42	7 01	7 13
27	6 03	5 48	5 33	5 15	5 05	12 06	6 10	6 24	6 39	6 57	7 07
Aug 4	6 02	5 50	5 36	5 20	5 11	12 06	6 09	6 22	6 36	6 51	7 00
12	6 02	5 51	5 39	5 25	5 17	12 05	6 08	6 19	6 31	6 44	6 52
20	6 00	5 51	5 41	5 30	5 23	12 03	6 07	6 16	6 25	6 36	6 43
28	5 58	5 51	5 43	5 34	5 29	12 01	6 05	6 12	6 19	6 28	6 33
Sept. 5	5 56	5 50	5 45	5 39	5 35	11 59	6 02	6 06	6 12	6 18	6 22
13	5 53	5 50	5 47	5 43	5 41	11 56	5 59	6 01	6 04	6 08	6 10
21	5 50	5 49	5 48	5 47	5 47	11 53	5 56	5 57	5 58	5 59	5 59
29	5 47	5 49	5 50	5 52	5 53	11 51	5 54	5 52	5 50	5 49	5 48
Oct. 7	5 45	5 48	5 52	5 56	5 59	11 48	5 51	5 47	5 43	5 39	5 36
15	5 43	5 48	5 54	6 01	6 05	11 46	5 49	5 43	5 37	5 30	5 26
23	5 41	5 49	5 58	6 07	6 12	11 44	5 48	5 40	5 31	5 22	5 16
31	5 40	5 50	6 01	6 13	6 20	11 44	5 47	5 37	5 26	5 14	5 07
Nov. 8	5 40	5 52	6 05	6 19	6 27	11 44	5 47	5 35	5 23	5 08	5 00
16	5 41	5 55	6 09	6 26	6 35	11 45	5 48	5 35	5 20	5 04	4 54
24	5 43	5 58	6 14	6 32	6 43	11 47	5 50	5 35	5 19	5 01	4 50
Dec. 2	5 46	6 02	6 19	6 39	6 50	11 49	5 53	5 37	5 20	5 00	4 48
10	5 49	6 06	6 24	6 45	6 57	11 53	5 56	5 39	5 21	5 01	4 49
18	5 53	6 10	6 29	6 50	7 02	11 56	6 00	5 43	5 24	5 03	4 51
26	5 57	6 14	6 33	6 54	7 06	12 00	6 04	5 47	5 28	5 07	4 55
Jan. 3	6 01	6 18	6 36	6 56	7 08	12 04	6 08	5 51	5 33	5 12	5 00

The timings relate to the visibility of the upper limb of the Sun on the horizon, and as such include refraction and limb-corretion amounting to a total of about 3½ mins. (3 mins. for 0° or 10° lat. and 4 mins. for 30° or 35° lat.) For this reason the above times have been obtained by *diminishing* the calculated figures by the above amount for sunrise and *increasing* for sunset.

The L. M. T. of rise and set for intermediate latitudes and dates may be obtained by simple proportion. Thereafter the timings can be converted into I.S.T. by inverse application of the local time correction for the place.

Example of a Foreign City

Date : 20th March 1985, Wednesday.
Time : 5-14 p.m. Local Standard Time.
Place : Paris (France).
Lat. 48° 50′ N, Long. 2° 20′ E.

As the place falls in the Time Zone of $+1h$ which is the standard time of the country, G.M.T. of the moment is thus less by $1^h\ 0^m$ (i.e. G.M.T. is 5-14 p.m. *minus* 1-0=4-14 p.m. of 20 Mar.) and I.S.T. is in advance by $4^h\ 30^m$ (i.e. I.S.T. is 5-14 p.m. *plus* 4-30 =9-44 p.m. of 20 Mar.).

As the place is in the east of Greenwich, the L.M.T. of the moment is more* than G.M.T. by the time-equivalent of the longitude, i.e. by $9^m 20^s$ ($2°20' \times 4 = 9^m\ 20^s$). Hence the L.M.T. as obtained from G.M.T. is 4-14 p.m. *plus* 9^m=4-23 p.m. nearly of 20. 3. 85. This can also be obtained by applying the L.M.T. correction of -51^m to 5-14 p.m.

So time is 5-14 p.m. of 20 March......Local Standard Time.
4-14 p.m. „ G.M.T. or U.T.
4-23 p.m. „ L.M.T. (for calculation of ascendant)
9-44 p.m. of 20 Mar. I.S.T. (for calculation of planets)

Ascendant—(*Lagna*)—Sidereal Time for 12*h* noon L.M.T. of 20 March 1985 at Paris is *h* 23-49-20 (p. 40)+ $1^m\ 37^s$ (Corr. for 1985)+53*s* (Corr. for Paris)=*h* 23-51-50.

∴ Sidereal Time for 4-23 p.m. L.M.T.
=*h* 23-51-50+(*h* 4-23+43^s)=*h*4-15-33

Hence the ascendant for Latitude 48°50′N is obtained from author's *Tables of Ascendants* as $4^s\ 18°\ 3' - 0°39'$ (Corr. for 1985)=$4^s 17°\ 24'$ i.e., Simha 17°24′. From the short table given on page 80 of the annual ephemeris, it is seen that the ascendant Simha begins on 20 March at 48° 50′ N latitude at *h* 15-28 (−) 42*m*=14−46 i.e. 2-46 p.m. L.M.T. which confirms the above result.

Planets—To be calculated for 9-44 p.m. I.S.T. of 20.3.85 which moment is *h* 16-14 after 5-30 a.m. I.S.T. of 20.3.85. The Moon is found for this epoch at $10^s\ 19°\ 8' + 8°10' = 10^s\ 27°\ 18'$ (Kumbha 27°18′)

Similarly the positions of other planets are also to be obtained for the above hour of I.S.T.

---

*Time is more for places in the East and less for places in the West.

CONDENSED EPHEMERIS

FOR FIVE YEARS

FROM 1981 TO 1985 A.D.
„ 1902-03 „ 1906-07 ŚAKA ERA
„ 2037-38 „ 2041-42 SAMVAT ERA
„ 1387-88 „ 1391-92 (B.S.) BENGALI SAN
„ 1156-57 „ 1160-61 KOLLAM ERA

Saka era begins on Mar. 21-22 or with Bengali San or Saṁvat era.
Samvat era „ with lunar Chaitra *i.e.* when *tithi* is 1 12
Kartikadi Samvat „ with next lunar Kartika when *tithi* is 1 7
Bengali San begins on 1st Vaiśākha *i.e.* when Bengali date is 1 1
Kollam era „ on about Aug. 16-17 when the Sun enters Simha.

Fusli era is the same with Bengali San from solar Vaiśākha to the full moon of Bhādra *i.e.* when *tithi* is 15 5, after which the next year of Fusli begins. Hindi months begin from the date after full moon a fortnight before the beginning of the corresponding Śuklādi lunar months.

The Bārhaspatya Varsha or the Jovian 60-year cycle Samvatsara are the same as given in author's Advance Ephemeris.

The beginning dates of Saka, Samvat (two kinds), Bengali and Kollam eras and the Barhaspatya Varsa have been given for each year.

Nirayaṇa or sidereal longitudes (geocentric, apparent) of planets (including Sun and Moon) are given for the instant 0*h* U.T. i.e. 0*h* G.M.T. Greenwich mean midnight or 5-30 A.M. Indian Standard Time (I.S.T.) or 5-53-30 A.M. Calcutta local time, which is also the same as 4-51-20 A.M. Bombay local time, and 5-20-59 A.M. Madras local time.

The longitudes of Saturn, Jupiter, Mars, Sun and Venus have been given at intervals of two days and those of Moon and Mercury have been given for each day.

Bengali dates have been taken from Bengali *Pañjikās* of old school as computed on the basis of Sūrya-Siddhānta. The months are indicated by numbers in the following way : Vaiśākha—1, Jyaiṣṭha—2, Āṣāḍha—3, Śrāvaṇa—4, Bhādra—5, Āśvina—6. Kārtika—7, Agrahāyana—8, Pauṣa—9, Māgha—10, Phālguna—11 & Chaitra—12.

Tithis have been counted from *Sukla paksha* or the light half of the month and numbered from 1 to 30 (new moon). These have been taken from *Pañjikās* or *Pañcāṅgas* computed on modern methods.. The second figure under this head shows the *Mukhya* lunar month indicated by numbers counted from Vaiśākha as 1. Figures in italics indicate intercalary month *i.e. mala* or *adhika māsa*.

The *sudi* half of the month begins when the number of the *tithi* is 1, and the *vadi* half of the same month (Krishnadi system) begins 15 days earlier when the number of *tithi* is 16. For example, the figs. 16 4 under this column indicate the beginning of Bhādra *vadi* and 1 5 the beginning of Bhādra *sudi*.

The beginning of the lunar months are indicated by the following numbers of tithi and month :—

16	9	Māgha	vadi	and	1	10	Māgha	sudi or sukla
16	10	Phālguna	,,	,,	1	11	Phālguna	,,
16	11	Chaitra	,,	,,	1	12	Chaitra	sudi (new year)
16	12	Vaisākha	,,	,,	1	1	Vaisākha	,,
16	1	Jyaistha	,,	,,	1	2	Jyaistha	,,
16	2	Asādha	,,	,,	1	3	Asādha	,,
16	3	Srāvana	,,	,,	1	4	Srāvana	,,
16	4	Bhādra	,,	,,	1	5	Bhādra	,,
16	5	Asvina (N.Y.)	,,	,,	1	6	Asvina	,,
16	6	Kārtika	,,	,,	1	7	Kārtika	,, (new year)
16	7	Agrahā		,,	1	8	Mārga	,,
16	8	Pāusa	,,	,,	1	9	Pāusa	,,

The first figure in the longitude of a planet indicates the sign or *rasi* of the *nirayana* zodiac, *viz.* 0 means that the planet is in Mesa (Aries), 1—Vrisha (Taurus), 2—Mithuna (Gemini), etc., as shown in the last column of the symobls given below. The second and the third figures in the longitude are degrees and minutes indicating the position of the planet in that *nirayana rasi*.

SYMBOLS

☉—Sun	*Ravi, Sūrya*
☽—Moon	*Candra*
☿—Mercury	*Budha*
♀—Venus	*Śukra, Bhṛgu*
♂—Mars	*Maṅgala, Kuja*
♃—Jupiter	*Bṛhaspati, Guru*
♄—Saturn	*Śani*
♅—Uranus or Herschel	*Indra, Prajāpati*
♆—Neptune	*Varuṇa*
♇—Pluto	*Rudra, Yama*
☊—Ascending Node or Dragon's head	*Rāhu*
☋—D. Node, Dragon's tail	*Ketu*
⊕—Earth	*Pṛthivī*

♈—Aries	0	*Meṣa*
♉—Taurus	1	*Vṛṣa*
♊—Gemini	2	*Mithuna*
♋—Cancer	3	*Karkata*
♌—Leo	4	*Siṁha*
♍—Virgo	5	*Kanyā*
♎—Libra	6	*Tulā*
♏—Scorpio	7	*Vṛścika*
♐—Sagittarius	8	*Dhanus*
♑—Capricorn	9	*Makara*
♒—Aquarius	10	*Kumbha*
♓—Pisces	11	*Mīna*

CHANGES IN THE TIMINGS IN INDIA

Originally each city of India used to maintain the local mean time of her own, while the Panchangs used to indicate the local apparent time for many years. Any such recorded local mean time of the city can easily be converted into the Indian Standard Time of present day usage when the longitude of the place is known.

Standard time = Local time − 4 (E. Long.—82° 30′) mins. of time
or = Local time + 4 (82° 30′ − E. Long.) mins. of time.

Afterwards the old Railway time, the same as the local time of Madras ($5^h\ 21^m$ ahead of G.M.T.) began to come into usage. Many small cities, particularly outside Bengal, gradually adopted this time for civil purposes also. This old Railway time can be converted into the present I.S.T. by the *addition* of 9 mins. only.

From 1906 A.D. the present I.S.T. which is 5*h* 30*m* ahead of Greenwich mean time was adopted for the Railway and Postal organisations. Cities using old Railway time adopted this Standard time from that date. But Calcutta and many places in Bengal and some places of the adjacent provinces including some big cities of other states continued to maintain the local time instead of the standard time up to the end of September, 1941. After that date there were changes of varying nature in the timings of different places as stated below.

From 1st September, 1942 to 14th October, 1945, the Indian Standard time was advanced all over India including modern Bangladesh and Pakistan by *one hour* for war purposes of daylight saving and was made equivalent to Bengal time which was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to obtain I.S.T. From 1st Sept. 1947 Indian Standard Time was introduced all over India. Other changes of timings during the war period and afterwards are noted below :—

			Reduction to I.S.T
In Calcutta ...	before 1st Oct., 1941 ...	Calcutta time	—0*h* 23*m*
In whole of Bengal from	1-10-41 to 14-5-42 ...	Bengal time	—1*h* 0*m*
" " "	15-5-42 to 31-8-42 ...	I. S. T.	0*h* 0*m*
" " "	1-9-42 to 31-8-47 ...	Bengal time	—1*h* 0*m*
In West Bengal since 1st	September, 1947 ...	I.S.T.	0*h* 0*m*

Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45, and Bihar from 1-12-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time (otherwise I.S.T) ... ... —1*h* 0*m*

East Pakistan observed Bengal time for civil purposes and Pakistan standard time same as I.S.T., for Railway and Postal work, etc., up to 30-9-51. From 1st Oct., 1951 East Pakistan (now Bangladesh) standard time is 30m more than I.S.T. and West Pakistan (now Pakistan) standard time is 30*m* less than I.S.T.

1981 A. D. Longitude of Moon CONDENSED

Saka era 1902-03, Saṁvat 2037-38 (Apr. 5, Oct. 28), B.S. 1387-88 (Apr. 14), Kollam era 1156-57 (Aug. 17), 55 Durmati (Apr. 5, Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ठ) at 5-30 A. M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 28	13	9	4 28 50	5 10 52	5 22 47	6 4 38	6 16 31	6 28 30	7 10 38
Jan. 4	20	9	7 22 58	8 5 31	8 18 19	9 1 21	9 14 37	9 28 04	10 11 43
11	27	9	10 25 32	11 9 29	11 23 34	0 7 45	0 21 59	1 6 14	1 20 28
18	4	10	2 4 35	2 18 32	3 2 16	3 15 43	3 28 52	4 11 42	4 24 15
25	11	10	5 6 32	5 18 37	6 0 34	6 12 26	6 24 20	7 6 19	7 18 28
Feb. 1	18	10	8 0 51	8 13 31	8 26 30	9 9 49	9 23 27	10 7 22	10 21 31
8	25	10	11 5 48	11 20 10	0 4 31	0 18 48	1 2 59	1 17 00	2 0 51
15	3	11	2 14 32	2 28 00	3 11 16	3 24 20	4 7 10	4 19 48	5 2 13
22	10	11	5 14 26	5 26 30	6 8 26	6 20 19	7 2 12	7 14 09	7 26 16
Mar. 1	17	11	8 8 36	8 21 16	9 4 17	9 17 43	10 1 35	10 15 50	11 0 24
8	24	11	11 15 10	0 0 00	0 14 47	0 29 23	1 13 43	1 27 45	2 11 28
15	1	12	2 24 53	3 8 01	3 20 55	4 3 37	4 16 08	4 28 30	5 10 43
22	8	12	5 22 49	6 4 48	6 16 43	6 28 35	7 10 27	7 22 23	8 4 27
29	15	12	8 16 44	8 29 18	9 12 15	9 25 39	10 9 32	10 23 52	11 8 38
Apr. 5	22	12	11 23 42	0 8 54	0 24 04	1 9 01	1 23 38	2 7 50	2 21 37
12	29	12	3 4 59	3 17 59	4 0 42	4 13 10	4 25 27	5 7 36	5 19 39
19	6	1	6 1 37	6 13 32	6 25 24	7 7 17	7 19 10	8 1 08	8 13 13
26	13	1	8 25 29	9 8 01	9 20 54	10 4 11	10 17 57	11 2 11	11 16 54
May 3	20	1	0 1 58	0 17 16	1 2 35	1 17 45	2 2 35	2 17 00	3 0 56
10	27	1	3 14 24	3 27 26	4 10 07	4 22 31	5 4 42	5 16 44	5 28 40
17	3	2	6 10 33	6 22 26	7 4 19	7 16 14	7 28 12	8 10 17	8 22 28
24	10	2	9 4 50	9 17 27	10 0 20	10 13 35	10 27 14	11 11 19	11 25 48
31	17	2	0 10 40	0 25 46	1 10 58	1 26 04	2 10 56	2 25 25	3 19 28
June 7	24	2	3 23 02	4 6 11	4 18 55	5 1 21	5 13 32	5 25 32	6 7 27
14	31	2	6 19 19	7 1 11	7 13 07	7 25 07	8 7 15	8 19 30	9 1 55
21	6	3	9 14 31	9 27 20	10 10 23	10 23 44	11 7 23	11 21 21	0 5 38
28	13	3	0 20 12	1 4 57	1 19 48	2 4 36	2 19 14	3 3 35	3 17 35
July 5	20	3	4 1 10	4 14 22	4 27 10	5 9 39	5 21 52	6 3 54	6 15 49
12	27	3	6 27 42	7 9 36	7 21 35	8 3 42	8 15 59	8 28 28	9 11 11
19	3	4	9 24 07	10 7 16	10 20 40	11 4 16	11 18 06	0 2 06	0 16 17
26	10	4	1 0 36	1 14 59	1 29 24	2 13 46	2 28 00	3 12 01	3 25 47
Aug. 2	17	4	4 9 14	4 22 21	5 5 09	5 17 38	5 29 53	6 11 55	6 23 51
9	24	4	7 5 43	7 17 38	7 29 39	8 11 51	8 24 16	9 6 58	9 19 58
16	31	4	10 3 16	10 16 51	11 0 41	11 14 43	11 28 52	0 13 06	0 27 20
23	6	5	1 11 33	1 25 42	2 9 45	2 23 40	3 7 27	3 21 03	4 4 27
30	13	5	4 17 37	5 0 33	5 13 13	5 25 38	6 7 50	6 19 51	7 1 46
Sept. 6	20	5	7 13 37	7 25 30	8 7 30	8 19 42	9 2 11	9 15 00	9 28 12
13	27	5	10 11 48	10 25 46	11 10 03	11 24 32	0 9 09	0 23 44	1 8 13
20	3	6	1 22 31	2 6 37	2 20 27	3 4 05	3 17 29	4 0 42	4 13 43
27	10	6	4 26 31	5 9 12	5 21 39	6 3 56	6 16 02	6 28 00	7 9 52
Oct. 4	17	6	7 21 41	8 3 31	8 15 28	8 27 37	9 10 03	9 22 52	10 6 06
11	24	6	10 19 49	11 3 59	11 18 34	0 3 27	0 18 29	1 3 29	1 18 20
18	1	7	2 2 53	2 17 07	3 0 58	3 14 29	3 27 42	4 10 39	4 23 23
25	8	7	5 5 55	5 18 17	6 0 31	6 12 37	6 24 36	7 6 30	7 18 19
Nov. 1	15	7	8 0 07	8 11 57	8 23 52	9 5 58	9 18 20	10 1 03	10 14 12
8	22	7	10 27 50	11 11 58	11 26 36	0 11 36	0 26 51	1 12 08	1 27 18
15	29	7	2 12 11	2 26 40	3 10 43	3 24 20	4 7 33	4 20 25	5 3 01
22	6	8	5 15 22	5 27 33	6 9 36	6 21 33	7 3 26	7 15 16	7 27 06
29	13	8	8 8 56	8 20 49	9 2 48	9 14 57	9 27 19	10 9 59	10 23 02
Dec. 6	20	8	11 6 30	11 20 27	0 4 52	0 19 41	1 4 49	1 20 05	2 5 21
13	27	8	2 20 24	3 5 06	3 19 24	4 3 13	4 16 36	4 29 33	5 12 09
20	4	9	5 24 28	6 6 35	6 18 32	7 0 24	7 12 13	7 24 03	8 5 55
27	11	9	8 17 51	8 29 53	9 12 03	9 24 23	10 6 55	10 19 42	11 2 47
Jan. 3	18	9	11 16 11	11 29 57	0 14 05	0 28 33	1 13 19	1 28 15	2 13 16

Longitudes of Planets 1981 A.D.

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	*Tithi* & *Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			मं ♂ मं			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	25	8	5	15	55	5	15	55	9	7	15	8	16	54	7	23	33	8	17s	14	8	18	51
3	27	8	5	15	58	5	16	04	9	8	49	8	18	56	7	26	03	8	20	28	8	22	06
5	29	8	5	16	02	5	16	11	9	10	23	8	20	59	7	28	33	8	23	44	8	25	22
7	1	9	5	16	04	5	16	18	9	11	58	8	23	01	8	1	03	8	27	00	8	28	39
9	3	9	5	16	07	5	16	24	9	13	32	8	25	03	8	3	33	9	0	19	9	1	58
11	5	9	5	16	09	5	16	30	9	15	07	8	27	06	8	6	03	9	3	38	9	5	18
13	8	9	5	16	10	5	16	35	9	16	41	8	29	08	8	8	33	9	6	59	9	8	40
15	10	9	5	16	11	5	16	39	9	18	16	9	1	10	8	11	04	9	10	21	9	12r	02
17	12	9	5	R16	12	5	16	42	9	19	51	9	3	12	8	13	34	9	13	43	9	15	24
19	14	9	5	16	12	5	16	45	9	21	25	9	5	14	8	16	04	9	17	05	9	18	46
21	16	9	5	16	11	5	16	47	9	23	00	9	7	17	8	18	34	9	20	26	9	22	06
23	18	9	5	16	11	5	R16	48	9	24	35	9	9	19	8	21	03	9	23	44	9	25	21
25	20	9	5	16	10	5	16	48	9	26	10	9	11	21	8	23	34	9	26	57	9	28	31
27	22	9	5	16	08	5	16	48	9	27s	45	9	13	23	8	26	05	10	0	02	10	1	30
29	24	9	5	16	06	5	16	46	9	29	20	9	15	24	8	28	35	10	2	55	10	4	16
31	26	9	5	16	04	5	16	44	10	0	55	9	17	26	9	1	05	10	5	32	10	6	43
Feb. 2	28	9	5	16	01	5	16	42	10	2	30	9	19	28	9	3	35	10	7	47	10	8	44
4	30	9	5	15	57	5	16	38	10	4	05	9	21	30	9	6	05	10	9	34	10	10	15
6	2	10	5	15	54	5	16	34	10	5	39	9	23	32	9	8	36	10	10	46	10	11	08
8	4	10	5	15	50	5	16	29	10	7	14	9	25	33	9	11	06	10	R11	19	10	11	19
10	6	10	5	15	45	5	16	23	10	8	49	9	27	35	9	13	36	10	11	08	10	10s	47
12	8	10	5	15	41	5	16	17	10	10	24	9	29	36	9	16	06	10	10	15	10	9	34
14	10	10	5	15	35	5	16	09	10	11	59	10	1	37	9	18	36	10	8	45	10	7	48
16	13	10	5	15	30	5	16	01	10	13	34	10	3	39	9	21	06	10	6	46	10	5	41
18	15	10	5	15	24	5	15	53	10	15	08	10	5	40	9	23	36	10	4	33	10	3	25
20	17	10	5	15	18	5	15	44	10	16	43	10	7	41	9	26	06	10	2	18	10	1	15
22	18	10	5	15	11	5	15	34	10	18	18	10	9	41	9	28	36	10	0	15	9	29r	21
24	20	10	5	15	04	5	15	23	10	19	52	10	11	42	10	1	06	9	28	34	9	27	53
26	22	10	5	14	57	5	15	12	10	21	27	10	13	43	10	3s	36	9	27	19	9	26	53
28	24	10	5	14	50	5	15	01	10	23	01	10	15	43	10	6	06	9	26	33	9	26	21
Mar. 2	26	10	5	14	42	5	14	49	10	24	35	10	17	44	10	8	36	9	D26	16	9	26	17
4	28	10	5	14	34	5	14	36	10	26	10	10	19	44	10	11	05	9	26	25	9	26	38
6	30	10	5	14	26	5	14	23	10	27	44	10	21	44	10	13	35	9	26	57	9	27	22
8	2	11	5	14	18	5	14	10	10	29	18	10	23	44	10	16	05	9	27	51	9	28	25
10	5	11	5	14	09	5	13	56	11	0	52	10	25	44	10	18	35	9	29	03	9	29	45
12	7	11	5	14	00	5	13	42	11	2	25	10	27	44	10	21	04	10	0	31	10	1	20
14	9	11	5	13	52	5	13	27	11	3	59	10	29	44	10	23	34	10	2	13	10	3	09
16	11	11	5	13	43	5	13	12	11	5	33	11	1	44	10	26	03	10	4	07	10	5	08
18	13	11	5	13	34	5	12	57	11	7	06	11	3	43	10	28	33	10	6	12	10	7	18
20	15	11	5	13	24	5	12	42	11	8	39	11	5	42	11	1	02	10	8	27	10	9	37
22	17	11	5	13	15	5	12	27	11	10	12	11	7	41	11	3	31	10	10	50	10	12	05
24	19	11	5	13	06	5	12	11	11	11	45	11	9	40	11	6	01	10	13	21	10	14	40
26	20	11	5	12	56	5	11	56	11	13	18	11	11	39	11	8	30	10	16	00	10	17	22
28	22	11	5	12	47	5	11	41	11	14	51	11	13	38	11	10	59	10	18	45	10	20	10
30	24	11	5	12	38	5	11	24	11	16	23	11	15	37	11	13	28	10	21	37	10	23	05
Apr. 1	26	11	5	12	28	5	11	09	11	17	56	11	17	35	11	15	57	10	24	35	10	26	06
3	28	11	5	12	19	5	10	54	11	19	28	11	19	33	11	18	26	10	27	39	10	29	14
5	1	12	5	12	10	5	10	39	11	21	00	11	21	32	11	20	55	11	0	49	11	2	27
7	3	12	5	12	00	5	10	24	11	22	32	11	23	30	11	23	24	11	4	05	11	5	46
9	5	12	5	11	51	5	10	09	11	24	04	11	25	28	11	25	53	11	7	27	11	9s	11
11	8	12	5	11	43	5	9	55	11	25	35	11	27	26	11	28	21	11	10	55	11	12	42
13	10	12	5	11	34	5	9	41	11	27	07	11	29	23	0	0	50	11	14	30	11	16	19
15	11	12	5	11	25	5	9	27	11	28	38	0	1	21	0	3	18	11	18	10	11	20	02
17	13	12	5	11	17	5	9	14	0	0	09	0	3	18	0	5	47	11	21	56	11	23	52

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ नि			गु ♃ रु			मं ♂ ग			र ☉ वि			शु ♀ क्र			बु ☿ ध			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr.17	13	12	5R	11	17	5R	9	14	0	0s	09	0	3	18	0	5s	47	11	21s	56	11	23	52
19	15	12	5	11	09	5	9	01	0	1	40	0	5	15	0	8	15	11	25	49	11	27	47
21	17	12	5	11	01	5	8	49	0	3	10	0	7	13	0	10	44	11	29	47	0	1	49
23	19	12	5	10	53	5	8	37	0	4	41	0	9	10	0	13	12	0	3	52	0	5	56
25	21	12	5	10	45	5	8	26	0	6	11	0	11	06	0	15	40	0	8	01	0	10	08
27	23	12	5	10	38	5	8	15	0	7	41	0	13	03	0	18	08	0	12☌	15	0	14	23
29	25	12	5	10	31	5	8	05	0	9	11	0	15	00	0	20	36	0	16	32	0	18	41
May 1	27	12	5	10	24	5	7	55	0	10	40	0	16	56	0	23r	04	0	20	51	0	23	00
3	29	12	5	10	18	5	7	46	0	12	10	0	18	53	0	25	32	0	25	09	0	27	17
5	1	1	5	10	12	5	7	38	0	13	39	0	20	49	0	28	00	0	29	24	1	1r	29
7	4	1	5	10	06	5	7	30	0	15	08	0	22	45	1	0	28	1	3	33	1	5	36
9	6	1	5	10	01	5	7	23	0	16	37	0	24	42	1	2	56	1	7	36	1	9	33
11	8	1	5	9	56	5	7	16	0	18	05	0	26	37	1	5	24	1	11	28	1	13	21
13	10	1	5	9	51	5	7	11	0	19	34	0	28	33	1	7	51	1	15	10	1	16	57
15	12	1	5	9	47	5	7	06	0	21	02	1	0	29	1	10	19	1	18	40	1	20	20
17	14	1	5	9	43	5	7	02	0	22	30	1	2	25	1	12	46	1	21	57	1	23	30
19	15	1	5	9	39	5	6	58	0	23	58	1	4	20	1	15	14	1	25	00	1	26	16
21	17	1	5	9	36	5	6	55	0	25	25	1	6	16	1	17	41	1	27	49	1	29	08
23	19	1	5	9	33	5	6	52	0	26	52	1	8	11	1	20	08	2	0	24	2	1	36
25	21	1	5	9	30	5	6	51	0	28	19	1	10	06	1	22	36	2	2	44	2	3	49
27	23	1	5	9	28	5D	6	51	0	29	46	1	12	02	1	25	03	2	4	50	2	5	46
29	25	1	5	9	27	5	6	51	1	1	13	1	13	57	1	27	30	2	6	39	2	7	28
31	28	1	5	9	26	5	6	52	1	2	39	1	15	52	1	29	57	2	8	13	2	8	53
June 2	30	1	5	9	25	5	6	54	1	4	06	1	17	47	2	2	24	2	9	29	2	10	01
4	2	2	5	9	24	5	6	56	1	5	32	1	19	42	2	4	51	2	10	28	2	10	51
6	4	2	5D	9	24	5	6	59	1	6	58	1	21	37	2	7	18	2	11	09	2	11	23
8	7	2	5	9	25	5	7	02	1	8	23	1	23	31	2	9	45	2	11	32	2R.	11	36
10	8	2	5	9	25	5	7	07	1	9	48	1	25	26	2	12	12	2	11	36	2	11	32
12	10	2	5	9	27	5	7	12	1	11	14	1	27	21	2	14	38	2	11s	23	2	11	10
14	12	2	5	9	28	5	7	18	1	12	39	1	29	16	2	17	05	2	10	53	2	10	32
16	14	2	5	9	30	5	7	24	1	14r	03	2	1	10	2	19	31	2	10	08	2	9	41
18	16	2	5	9	33	5	7	31	1	15	28	2	3	05	2	21	58	2	9	11	2	8	40
20	18	2	5	9	35	5	7	39	1	16	52	2	4	59	2	24	24	2	8	06	2	7	32
22	20	2	5	9	39	5	7	47	1	18	16	2	6	54	2	26	51	2	6☌	57	2	6	23
24	22	2	5	9	42	5	7	56	1	19	40	2	8	48	2	29	17	2	5	49	2	5	17
26	24	2	5	9	46	5	8	06	1	21	03	2	10	42	3	1	43	2	4	46	2	4	18
28	26	2	5	9	50	5	8	16	1	22	27	2	12	37	3	4	09	2	3	53	2	3	31
30	28	2	5	9	55	5	8	27	1	23	50	2	14	31	3	6	35	2	3	13	2	3	00
July 2	1	3	5	10	00	5	8	38	1	25	13	2	16	26	3	9	01	2	2r	50	2D	2	45
4	3	3	5	10	06	5	8	50	1	26	36	2	18	20	3	11	27	2	2	45	2	2	50
6	5	3	5	10	12	5	9	03	1	27	58	2	20	15	3	13	53	2	2	59	2	3	14
8	7	3	5	10	18	5	9	16	1	29	21	2	22	09	3	16	19	2	3	34	2	3	59
10	9	3	5	10	24	5	9	29	2	0	43	2	24	04	3	18	45	2	4	29	2	5	04
12	11	3	5	10	31	5	9	44	2	2	05	2	25	58	3	21	10	2	5	45	2	6	30
14	12	3	5	10	38	5	9	58	2	3	26	2	27	52	3	23	36	2	7	20	2	8	16
16	14	3	5	10	46	5	10	13	2	4	48	2	29	47	3	26	01	2	9	16	2	10	21
18	16	3	5	10	54	5	10	29	2	6	09	3	1	41	3	28	27	2	11	30	2	12	44
20	18	3	5	11	02	5	10	45	2	7	30	3	3	36	4	0	52	2	14	03	2	15	27
22	20	3	5	11	11	5	11	02	2	8	51	3	5	30	4	3	17	2	16	54	2	18	26
24	23	3	5	11	19	5	11	19	2	10	12	3	7	25	4	5	42	2	20	02	2	21	42
26	25	3	5	11	29	5	11	36	2	11	32	3	9	19	4	8	07	2	23	26	2	25	13
28	27	3	5	11	38	5	11	54	2	12	53	3	11	14	4	10	31	2	27	03	2	28	56
30	29	3	5	11	48	5	12	12	2	14	13	3	13	09	4	12	56	3	0	52	3	2	50
Aug. 1	1	4	5	11	58	5	12	31	2	15	32	3	15	04	4	15	21	3	4s	50	3	6	52

Ayanamsa on 1st Jan. : 23° 35′ 17″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Aug. 1	1	4	5	11	58	5	12	31	2	15	32	3	15	04	4	15	21	3	4s	50	3	6	52
3	3	4	5	12	08	5	12	50	2	16	52	3	16	59	4	17	45	3	8	55	3	10	59
5	5	4	5	12	19	5	13	10	2	18	11	3	18	53	4	20	09	3	13	03	3	15	08
7	7	4	5	12	29	5	13	30	2	19	31	3	20	48	4	22	33	3	17	13	3	19	17
9	9	4	5	12	40	5	13	50	2	20	50	3	22	43	4	24	57	3	21	21	3	23☌	25
11	11	4	5	12	52	5	14	10	2	22	08	3	24	39	4	27	21	3	25	27	3	27	28
13	13	4	5	13	03	5	14	31	2	23	27	3	26	34	4	29	45	3	29	29	4	1	28
15	15	4	5	13	15	5	14	53	2	24	45	3	28	29	5	2	08	4	3	26	4	5	23
17	17	4	5	13	27	5	15	14	2	26	03	4	0	24	5	4	32	4	7	18	4	9	12
19	19	4	5	13	39	5	15	36	2	27	21	4	2	20	5	6	55	4	11	04	4	12	55
21	21	4	5	13	51	5	15	58	2	28	39	4	4	15	5	9	18	4	14	45	4	16	33
23	23	4	5	14	04	5	16	20	2	29	57	4	6	11	5	11	40	4	18	20	4	20r	06
25	26	4	5	14	17	5	16	43	3	1	14	4	8	06	5	14	03	4	21	50	4	23	33
27	28	4	5	14	30	5	17	06	3	2	31	4	10	02	5	16	26	4	25	15	4	26	55
29	30	4	5	14	42	5	17	29	3	3	48	4	11	58	5	18	48	4	28	34	5	0	11
31	2	5	5	14	56	5	17	53	3	5	05	4	13	54	5	21	10	5	1	48	5	3	23
Sept. 2	4	5	5	15	09	5	18	16	3	6	21	4	15	50	5	23	32	5	4	57	5	6	29
4	6	5	5	15	23	5	18	40	3	7	37	4	17	47	5	25	53	5	8	01	5	9	31
6	7	5	5	15	37	5	19	04	3	8	53	4	19	43	5	28	15	5	10	59	5	12	27
8	9	5	5	15	51	5	19	28	3	10	09	4	21	39	6	0	36	5	13	53	5	15	18
10	11	5	5	16	04	5	19	53	3	11	25	4	23	36	6	2	57	5	16	42	5	18	04
12	13	5	5	16	18	5	20	17	3	12	40	4	25	33	6	5	17	5	19	25	5	20	44
14	15	5	5	16	33	5	20	42	3	13	55	4	27	29	6	7	38	5	22	02	5	23	18
16	18	5	5	16	47	5	21	07	3	15	10	4	29	26	6	9	58	5	24	33	5	25	46
18	20	5	5	17s	01	5	21	32	3	16	25	5	1	23	6	12	17	5	26	58	5	28	07
20	22	5	5	17	16	5	21	57	3	17	39	5	3	21	6	14	37	5	29	15	6	0	21
22	24	5	5	17	30	5	22	23	3	18	54	5	5	18	6	16	56	6	1	24	6	2	25
24	26	5	5	17	45	5	22	48	3	20	08	5	7	15	6	19	15	6	3	24	6	4	20
26	28	5	5	17	59	5	23	14	3	21	21	5	9	13	6	21	33	6	5	13	6	6	02
28	30	5	5	18	14	5	23s	39	3	22	35	5	11	11	6	23	51	6	6	49	6	7	31
30	2	6	5	18	29	5	24	05	3	23	48	5	13	09	6	26	09	6	8	10	6	8	44
Oct. 2	4	6	5	18	43	5	24	31	3	25	01	5	15	07	6	28	27	6	9	14	6	9	38
4	6	6	5	18	53	5	24	57	3	26	14	5	17	05	7	0	44	6	9	57	6	10	09
6	8	6	5	19☌	13	5	25	23	3	27	26	5	19	03	7	3	00	6	R10	15	6	10	15
8	10	6	5	19	28	5	25	49	3	29	39	5	21	02	7	5	16	6	10s	06	6	9	50
10	12	6	5	19	42	5	26	15	3	29	50	5	23	00	7	7	32	6	9	26	6	8	54
12	14	6	5	19	57	5	26	41	4	1	02	5	24	59	7	9	47	6	8	13	6	7	25
14	16	6	5	20	12	5	27☌	07	4	2	14	5	26	57	7	12	01	6	6	29	6	5	27
16	18	6	5	20	26	5	27	33	4	3	25	5	28	56	7	14	15	6	4	19	6	3	08
18	21	6	5	20	41	5	27	59	4	4	36	6	0	55	7	16	28	6	1☌	54	6	0	40
20	23	6	5	20r	55	5	28	25	4	5	46	6	2	55	7	18	40	5	29	29	5	28	21
22	25	6	5	21	10	5	28	51	4	6	56	6	4	54	7	20	52	5	27	21	5	26r	28
24	27	6	5	21	24	5	29	17	4	8	06	6	6	53	7	23	03	5	25	45	5	25	12
26	29	6	5	21	39	5	29r	43	4	9	16	6	8	53	7	25	14	5	24	50	5	D24	40
28	1	7	5	21	53	6	0	09	4	10	25	6	10	53	7	27	23	5	24	42	5	24	54
30	2	7	5	22	07	6	0	34	4	11	34	6	12	53	7	29	32	5	25	17	5	25	49
Nov. 1	4	7	5	22	21	6	1	00	4	12	43	6	14	53	8	1	39	5	26	30	5	27	19
3	6	7	5	22	35	6	1	26	4	13	51	6	16	53	8	3	46	5	28	15	5	29	18
5	8	7	5	22	49	6	1	51	4	14	59	6	18	53	8	5	51	6	0	25	6	1	38
7	10	7	5	23	03	6	2	17	4	16	06	6	20	54	8	7	55	6	2	54	6	4	14
9	12	7	5	23	16	6	2	42	4	17	13	6	22	54	8	9	58	6	5	37	6	7	03
11	14	7	5	23	30	6	3	07	4	18	20	6	24	55	8	12	00	6	8	30	6	9	59
13	17	7	5	23	43	6	3	32	4	19	26	6	26	55	8	13	59	6	11	29	6	13	01
15	19	7	5	23	56	6	3	57	4	20	32	6	28	56	8	15	58	6	14	33	6	16	06

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov15	19	7	5 23 56	6 3 57	4 20 32	6 28 56	8 15 58	6 14 33	6 16 06
17	21	7	5 24 09	6 4 22	4 21 37	7 0 57	8 17 54	6 17 40	6 19 14
19	23	7	5 24 21	6 4 47	4 22 42	7 2 58	8 19 49	6 20 48	6 22 23
21	25	7	5 24 34	6 5 11	4 23 46	7 4 59	8 21 21	6 23 58	6 25s33
23	27	7	5 24 46	6 5 35	4 24 50	7 7 00	8 23 42	6 27 08	6 28 42
25	29	7	5 24 58	6 5 59	4 25 54	7 9 02	8 25 20	7 0 17	7 1 52
27	1	8	5 25 10	6 6 23	4 26 57	7 11 03	8 27 05	7 3 27	7 5 02
29	3	8	5 25 22	6 6 46	4 27 59	7 13 05	8 28 48	7 6 36	7 8 11
Dec. 1	4	8	5 25 33	6 7 10	4 29 01	7 15 06	9 0 27	7 9 45	7 11 20
3	6	8	5 25 44	6 7 33	5 0 02	7 17 08	9 2 03	7 12 54	7 14 28
5	8	8	5 25 55	6 7 55	5 1 02	7 19 10	9 3 36	7 16 03	7 17 37
7	10	8	5 26 05	6 8 18	5 2 02	7 21 12	9 5 05	7 19 11	7 20 45
9	13	8	5 26 16	6 8 40	5 3 02	7 23 14	9 6 28	7 22 19	7 23☌54
11	15	8	5 26 26	6 9 02	5 4 00	7 25 15	9 7 49	7 25 28	7 27 02
13	17	8	5 26 35	6 9 23	5 4 58	7 27 17	9 9 04	7 28 37	8 0 11
15	20	8	5 26 45	6 9 44	5 5 55	7 29 19	9 10 13	8 1 46	8 3 21
17	22	8	5 26 54	6 10 05	5 6 52	8 1 21	9 11 17	8 4 55	8 6 30
19	24	8	5 27 02	6 10 25	5 7 48	8 3 24	9 12 14	8 8 06	8 9 41
21	26	8	5 27 11	6 10 46	5 8 42	8 5 26	9 13 05	8 11 16	8 12 52
23	27	8	5 27 19	6 11 05	5 9 36	8 7 28	9 13 48	8 14 28	8 16 04
25	29	8	5 27 27	6 11 24	5 10 29	8 9 30	9 14 23	8 17 40	8 19 16
27	1	9	5 27 34	6 11 43	5 11 21	8 11 33	9 14 50	8 20 23	8 22 29
29	3	9	5 27 41	6 12 02	5 12 13	8 13 35	9 15 08	8 24 06	8 25r42
31	5	9	5 27 48	6 12 20	5 13 03	8 15 37	9R15 17	8 27 19	8 28 55
Jan. 2	7	9	5 27 54	6 12 37	5 13 52	8 17 40	9 15 16	9 0 31	9 2 07

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	3 17 27	3 18 55	7 4 49	7 29 28	6 0 34	23 35 17
February	1	3 17 16	3 17 19	7 6 04	8 0 29	6R 0 45	23 35 22
March	1	3 17 06	3 15 48	7R 6 31	8 1 05	6 0 26	23 35 25
April	1	3 15 20	3 14 09	7 6 12	8R 1 16	5 29 43	23 35 28
May	1	3 12 11	3 12 34	7 5 15	8 0 57	5 28 53	23 35 31
June	1	3 9 18	3 10 55	7 3 59	8 0 15	5 28 12	23 35 35
July	1	3 8 10	3 9 20	7 2 56	7 29 27	5D 27 56	23 35 40
August	1	3 8 10	3 7 41	7D 2 28	7 28 47	5 28 12	23 35 45
September	1	3 7 45	3 6 03	7 2 47	7D 28 30	5 28 57	23 35 48
October	1	3 5 42	3 4 27	7 3 49	7 28 42	6 0 01	23 35 51
November	1	3 2 15	3 2 49	7 5 28	7 29 23	6 1 15	23 35 54
December	1	2 29 39	3 1 13	7 7 18	8 0 23	6 2 19	23 35 59
January	1	2 28 52	2 29 35	7 9 05	8 1 33	6 3 05	23 36 04

Combustion or Heliacal Setting of Planets

Saturn	:	From Sept. 18 to Oct. 19.
Jupiter	:	From Sept. 29 to Oct. 25.
Mars	:	From Jan. 27 to June 15.
Venus	:	From Feb. 27 to May 1.
Mercury	:	Upto Jan. 16 then from Feb. 11 to Feb. 23, Apr. 10 to May 6, June 12 to July 2, Aug. 1 to Aug. 24, Oct. 8 to Oct. 23, Nov. 22 to Dec. 30.

Retrogressoin of Planets

PLANET	RETROGRADE Date				Long.			DIRECT Date				Long.		
			h	*m*	s	°	′			*h*	*m*	s	°	′
Mercury	Feb.	8,	17	58	10	11	19	Mar.	2,	12	47	9	26	16
	June	9,	17	09	2	11	38	July,	3,	18	25	2	2	45
	Oct.	6,	14	37	6	10	15	Oct.	27,	14	44	5	24	39
Venus	Dec.	31,	25	15	9	15	18	—		—			—	
Mars	—		—			—		—		—			—	
Jupiter	Jan.	24,	25	25	5	16	48	May	27,	23	50	5	6	51
Saturn	Jan.	18,	23	13	5	16	12	June	5,	7	48	5	9	24
Uranus	Mar.	5,	6	11	7	6	31	Aug.	4,	15	22	7	2	27
Neptune	Mar.	27,	9	11	8	1	16	Sept.	3,	17	29	7	28	30
Pluto	Jan.	26,	16	29	6	0	45	July	1,	23	29	5	27	56

New-Moon and Full-Moon

New-Moon	*d*	*h*	*m*	Lunar months begin		Full-Moon	*d*	*h*	*m*	Hindi Months begin	
Jan.	6	12	54	Pauṣa	Śukla	Jan.	20	13	09	Māgha	Vadi
Feb.	4	27	44	Māgha	"	Feb.	18	28	28	Phālguna	"
Mar.	6	16	01	Phālguna	"	Mar.	20	20	52	Caitra	"
Apr.	4	25	49	Caitra	"	Apr.	19	13	29	Vaiśākha	"
May	4	9	49	Vaiṣākha	"	May	19	5	34	Jyaiṣṭha	"
June	2	17	02	Jyaiṣṭha	"	June	17	20	34	Āṣāḍha	"
July	1	24	33	Āṣāḍha	"	July	17	10	09	Śrāvaṇa	"
July	31	9	22	Śrāvaṇa	"	Aug.	15	22	07	Bhādra	"
Aug.	29	20	13	Bhādra	"	Sept.	14	8	39	Āśvina	"
Sept.	28	9	37	Āśvina	"	Oct.	13	18	19	Kārtika	"
Oct.	27	25	43	Kārtika	"	Nov.	11	27	56	Agrahā	"
Nov.	26	20	08	Mārga	"	Dec.	11	14	11	Pauṣa	"
Dec.	26	15	40	Pauṣa	"			—			

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	13	25	57	Karkaṭa	on	July	16	11	03
Kumbha	on	Feb.	12	14	58	Siṁha	on	Aug.	16	19	27
Mina	on	Mar.	14	11	55	Kanyā	on	Sept.	16	19	19
Meṣa	on	Apr.	13	20	29	Tulā	on	Oct.	17	7	11
Vṛṣa	on	May	14	17	26	Vṛścika	on	Nov.	16	6	53
Mithuna	on	June	14	24	07	Dhanus	on	Dec.	15	21	28

1982 A. D. Longitudes of Moon CONDENSED

Saka era 1903-04, Samvat 2038-39 (Mar. 26, Oct. 17), B.S. 1388-89 (Apr. 15), Kollam era 1157-58 (Aug. 17), 56 Dundubhi (Mar. 26, Apr. 14).

Date	Beng. Date	*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A. M. I.S.T.						
		Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Dec. 27	12 9	8 17 51	8 29 53	9 12 03	9 24 23	10 6 55	10 19 42	11 2 47
Jan. 3	19 9	11 16 11	11 29 57	0 14 05	0 28 33	1 13 19	1 28 15	2 13 16
10	26 9	2 28 11	3 12 53	3 27 16	4 11 14	4 24 46	5 7 52	5 20 34
17	3 10	6 2 57	6 15 05	6 27 01	7 8 52	7 20 40	8 2 31	8 14 27
24	10 10	8 26 31	9 8 45	9 21 11	10 3 50	10 16 42	10 29 47	11 13 06
Feb. 31	17 10	11 26 38	0 10 24	0 24 23	1 8 35	1 22 56	2 7 26	2 21 59
7	24 10	3 6 30	3 20 53	4 5 05	4 18 58	5 2 30	5 15 40	5 28 27
14	2 11	6 10 54	6 23 04	7 5 02	7 16 53	7 28 42	8 10 34	8 22 33
21	9 11	9 4 44	9 17 09	9 29 51	10 12 51	10 26 07	11 9 38	11 23 22
28	16 11	0 7 15	0 21 15	1 5 19	1 19 26	2 3 34	2 17 42	3 1 48
Mar. 7	23 11	3 15 51	3 29 48	4 13 35	4 27 10	5 10 30	5 23 32	6 6 15
14	30 11	6 18 41	7 0 52	7 12 50	7 24 41	8 6 30	8 18 22	9 0 22
21	7 12	9 12 36	9 25 08	10 8 01	10 21 16	11 4 53	11 18 50	0 3 01
28	14 12	0 17 22	1 1 46	1 16 08	2 0 24	2 14 32	2 28 32	3 12 22
Apr. 4	21 12	3 26 04	4 9 36	4 22 58	5 6 09	5 19 08	6 1 54	6 14 26
11	28 12	6 26 45	7 8 51	7 20 47	8 2 37	8 14 25	8 26 16	9 8 15
18	4 1	9 20 29	10 3 02	10 15 53	10 29 20	11 13 08	11 27 21	0 11 54
25	11 1	0 26 38	1 11 27	1 26 13	2 10 48	2 25 08	3 9 13	3 23 00
May 2	18 1	4 6 32	4 19 49	5 2 52	5 15 43	5 28 22	6 10 50	6 23 08
9	25 1	7 5 15	7 17 14	7 29 06	8 10 54	8 22 41	9 4 32	9 16 32
16	1 2	9 28 44	10 11 15	80 24 09	11 7 29	11 21 18	0 5 34	0 20 14
23	8 2	1 5 12	1 20 18	2 5 22	2 20 17	3 4 55	3 19 13	4 3 08
30	15 2	4 16 41	4 29 53	5 12 47	5 25 25	6 27 50	6 20 04	7 2 08
June 6	22 2	7 14 06	7 25 58	8 7 46	8 19 34	9 1 23	9 13 17	9 25 19
13	29 2	10 7 34	10 20 05	11 2 56	11 16 12	11 29 54	0 14 03	0 28 37
20	5 3	1 13 32	1 28 40	2 13 51	2 28 57	3 13 49	3 28 21	4 12 27
27	12 3	4 26 08	5 9 24	5 22 16	6 4 50	6 17 07	6 29 12	7 11 09
July 4	19 3	7 23 00	8 4 48	8 16 36	8 28 26	9 10 21	9 22 23	10 4 33
11	26 3	10 16 56	10 29 32	11 12 26	11 25 40	0 9 15	0 23 14	1 7 34
18	2 4	1 22 14	2 7 10	2 22 13	3 7 16	3 22 10	4 6 48	4 21 02
25	9 4	5 4 50	5 18 12	6 1 08	6 13 42	6 25 57	7 7 59	7 19 52
Aug. 1	16 4	8 1 40	8 13 28	8 25 19	9 7 15	9 19 19	10 1 33	10 13 58
8	23 4	10 26 36	11 9 26	11 22 31	0 5 50	0 19 25	1 3 15	1 17 23
15	30 4	2 1 45	2 16 20	3 1 03	3 15 50	4 0 31	4 15 01	4 29 13
22	5 5	5 13 02	5 26 26	6 9 25	6 22 00	7 4 17	7 16 18	7 28 11
29	12 5	8 9 59	8 21 48	9 3 42	9 15 45	9 28 00	10 10 29	10 23 13
Sept. 5	19 5	11 6 10	11 19 22	0 2 46	0 16 20	1 0 04	1 13 57	1 27 58
12	26 5	2 12 07	2 26 23	3 10 43	3 25 05	4 9 23	4 23 34	5 7 31
19	2 6	5 21 10	6 4 28	6 17 23	6 29 58	7 12 14	7 24 16	8 6 08
26	9 6	8 17 56	8 29 46	9 11 42	9 23 50	10 6 14	10 18 55	11 1 56
Oct. 3	16 6	11 15 15	11 28 51	0 12 40	0 26 38	1 10 42	1 24 49	2 8 57
10	23 6	2 23 03	3 7 08	3 21 10	4 5 09	4 19 01	5 2 46	5 16 19
17	30 6	5 29 39	6 12 41	6 25 27	7 7 55	7 20 07	8 2 07	8 13 58
24	7 7	8 25 46	9 7 35	9 19 31	10 1 39	10 14 05	10 26 52	11 10 02
31	14 7	11 23 36	0 7 32	0 21 45	1 6 10	1 20 41	2 5 12	2 19 38
Nov. 7	21 7	3 3 55	3 18 03	4 1 59	4 15 43	4 29 16	5 12 37	5 25 45
14	28 7	6 8 41	6 21 24	7 3 53	7 16 10	7 28 15	8 10 10	8 22 00
21	5 8	9 3 46	9 15 34	9 27 29	10 9 35	10 21 58	11 4 42	11 17 51
28	12 8	0 1 27	0 15 29	0 29 55	1 14 39	1 29 33	2 14 31	2 29 22
Dec. 5	19 8	3 14 02	3 28 25	4 12 29	4 26 12	5 9 37	5 22 43	6 5 33
12	26 8	6 18 09	7 0 33	7 12 45	7 24 49	8 6 45	8 18 36	9 0 24
19	3 9	9 12 11	9 24 00	10 5 55	10 18 01	11 0 20	11 12 59	11 26 00
26	10 9	0 9 27	0 23 21	1 7 43	1 22 28	2 7 31	2 22 44	3 7 56
Jan. 2	17 9	3 22 58	4 7 42	4 22 03	5 5 58	5 19 26	6 3 00	6 15 18

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 36′ 04″

Nirayana Longitudes at 5-30 A.M. I.S.T..

Date	*Tithi* & *Month*		श ♄ श			बृ ♃ बृ			मं ♂ मं			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	6	9	5	27	51	6	12	28	5	13	27	8	16	38	9R	15	18	8	28	55	9	0	31
3	8	9	5	27	57	6	12	46	5	14	16	8	18	41	9	15	12	9	2	07	9	3	43
5	10	9	5	28	02	6	13	02	5	15	03	8	20	43	9	14	56	9	5	18	9	6	52
7	12	9	5	28	08	6	13	18	5	15	49	8	22	45	9	14	30	9	8	25	9	9	57
9	15	9	5	28	13	6	13	34	5	16	34	8	24	48	9	13	54	9	11	28	9	12	56
11	17	9	5	28	17	6	13	49	5	17	18	8	26	50	9	13	09	9	14	23	9	15	46
13	19	9	5	28	21	6	14	04	5	18	00	8	28	52	9	12	15	9	17	07	9	18	24
15	21	9	5	28	25	6	14	18	5	18	41	9	0	54	9	11	14	9	19	36	9	20	43
17	23	9	5	28	28	6	14	32	5	19	21	9	2	56	9	10	07s	9	21	45	9	22	39
19	25	9	5	28	31	6	14	45	5	19	59	9	4	59	9	8	50	9	23	27	9	24	05
21	27	9	5	28	33	6	14	57	5	20	35	9	7	01	9	7	42	9	24	34	9	24	54
23	28	9	5	28	35	6	15	09	5	21	10	9	9	03	9	6	28r	9R	25	02	9	24	59
25	30	9	5	28	37	6	15	20	5	21	43	9	11	05	9	5	17	9	24	45	9	24	19
27	2	10	5	28	38	6	15	30	5	22	14	9	13	07	9	4	08	9	23	42	9	22	55
29	4	10	5	28	39	6	15	40	5	22	43	9	15	09	9	3	06	9	21	59	9	20	55
31	6	10	5R	28	39	6	15	49	5	23	10	9	17	11	9	2	10	9	19	46	9	18	33
Feb. 2	8	10	5	28	39	6	15	58	5	23	35	9	19	13	9	1	22	9	17	19	9	16	06
4	11	10	5	28	38	6	16	05	5	23	58	9	21	14	9	0	44	9	14	55	9	13	48
6	13	10	5	28	37	6	16	12	5	24	19	9	23	16	9	0	15	9	12	48r	9	11	54
8	15	10	5	28	35	6	16	19	5	24	37	9	25	17	8	29	56	9	11	03	9	10	30
10	17	10	5	28	34	6	16	24	5	24	53	9	27	19	8D	29	46	9	10	00	9	9	39
12	19	10	5	28	31	6	16	29	5	25	07	9	29	20	8	29	47	9	9	25	9D	9	19
14	21	10	5	28	29	6	16	34	5	25	18	10	1	22	8	29	57	9	9	21	9	9	29
16	23	10	5	28	26	6	16	37	5	25	26	10	3	23	9	0	17	9	9	44	9	10	04
18	25	10	5	28	22	7	16	40	5	25	32	10	5	24	9	0	45	9	10	31	9	11	01
20	27	10	5	28	18	6	16	42	5R	25	34	10	7	25	9	1	21	9	11	38	9	12	18
22	29	10	5	28	14	6	16	43	5	25	34	10	9	26	9	2	05	9	13	03	9	13	51
24	1	11	5	28	09	6R	16	44	5	25	31	10	11	27	9	2	56	9	14	43	9	15	37
26	3	11	5	28	04	6	16	43	5	25	24	10	13	27	9	3	54	9	16	35	9	17	36
28	5	11	5	27	59	6	16	42	5	25	15	10	15	28	9	4	57	9	18	39	9	19	44
Mar. 2	7	11	5	27	53	6	16	40	5	25	02	10	17	28	9	6	07	9	20	52	9	22	01
4	9	11	5	27	47	6	16	38	5	24	47	10	19	29	9	7	21	9	23	13	9	24	27
6	11	11	5	27	41	6	16	35	5	24	28	10	21	29	9	8	40	9	25	42	9	26	59
8	14	11	5	27	34	6	16	31	5	24	06	10	23	29	9	10	04	9	28	18	9	29	38
10	16	11	5	27	27	6	16	26	5	23	41	10	25	29	9	11	32	10	1	00	10	2	23
12	18	11	5	27	20	6	16	20	5	23	14	10	27	29	9	13	03	10	3	48	10	5	14
14	20	11	5	27	12	6	16	14	5	22	43	10	29	28	9	14	38	10	6	41	10	8	10
16	21	11	5	27	05	6	16	07	5	22	10	11	1	28	9	16	17	10	9	40	10	11	12
18	23	11	5	26	57	6	16	00	5	21	34	11	3	27	9	17	58	10	12	44	10	14	18
20	25	11	5	26	49	6	15	51	5	20	56	11	5	27	9	19	42	10	15	53	10	17	30
22	27	11	5	26	40	6	15	42	5	20	16	11	7	26	9	21	29	10	19	03	10	20	47
24	29	11	5	26	32	6	15	33	5	19	34	11	9	25	9	23	18	10	22	27s	10	24	09
26	1	12	5	26	23	6	15	22	5	18	50	11	11	24	9	25	09	10	25	52	10	27	36
28	3	12	5	26	14	6	15	12	5	18	05	11	13	23	9	27	02	10	29	22	11	1	09
30	6	12	5	26	05	6	15	01	5	17	19	11	15	22	9	28	57	11	2	57	11	4	47
Apr. 1	8	12	5	25	56	6	14	49	5	16	33	11	17	20	10	0	54	11	6	38	11	8	30
3	10	12	5	25	47	6	14	37	5	15	46	11	19	18	10	2	52	11	10	24	11	12	19
5	12	12	5	25	38	6	14	24	5	15	00	11	21	17	10	4	52	11	14	16	11	16	13
7	14	12	5	25	29	6	14	11	5	14	14	11	23	15	10	6	53	11	18	13	11	20	13
9	16	12	5	25	19	6	13	57	5	13	29	11	25	13	10	8	56	11	22	15	11	24	17
11	18	12	5	25	10	6	13	43	5	12	46	11	27	10	10	10	59	11	26	21	11	28	26
13	20	12	5	25	01	6	13	29	5	12	03	11	29	08	10	13	04	0	0	31	0	2	37
15	22	12	5	24	52	6	13	14	5	11	23	0	1	06	10	15	10	0	4	44	0	6	51
17	23	12	5	24	42	6	13	00	5	10	45	0	3	03	10	17	17	0	8	57	0	11	03

1982 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 36′ 04″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T. श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	23 12	5 R24 42	6 R13 00	5 R10 45	0 3 03	10 17 17	0 8 57s	0 11 03
19	25 12	5 24 33	6 12 45	5 10 09	0 5 00	10 19 25	0 13 09	0 15 13r
21	27 12	5 24 24	6 12 30	5 9 35	0 6 58	10 21 34	0 17 17	0 19 18
23	30 12	5 24 15	6 12 14	5 9 05	0 8 55	10 23 44	0 21 18	0 23 15
25	2 1	5 24 07	6 11 59	5 8 37	0 10 52	10 25 54	0 25 10	0 27 02
27	4 1	5 23 58	6 11 44	5 8 12	0 12 48	10 28 05	0 28 51	1 0 37
29	6 1	5 23 50	6 11 28	5 7 50	0 14 45	11 0 17	1 2 19	1 3 58
May 1	9 1	5 23 41	6 11 13	5 7 32	0 16 42	11 2 29	1 5 32	1 7 03
3	11 1	5 23 33	6 10 58	5 7 16	0 18 38	11 4 42	1 8 30	1 9 52
5	13 1	5 23 26	6 10 43	5 7 04	0 20 34	11 6 56	1 11 10	1 12 24
7	15 1	5 23 18	6 10 28	5 6 55	0 22 31	11 9 10	1 13 33	1 14 39
9	16 1	5 23 11	6 10 14	5 6 49	0 24 27	11 11 24	1 15 39	1 16 35
11	18 1	5 23 04	6 9 59	5 D6 47	0 26 23	11 13 40	1 17 27	1 18 13
13	20 1	5 22 57	6 9 45	5 6 47	0 28 19	11 15 55	1 18 55	1 19 32
15	22 1	5 22 50	6 9 31	5 6 50	1 0 14	11 18 11	1 20 04	1 20 32
17	24 1	5 22 44	6 9 18	5 6 57	1 2 10	11 20 27	1 20 53	1 21 11
19	26 1	5 22 38	6 9 05	5 7 06	1 4 06	11 22 44	1 21 24	1 21 31
21	28 1	5 22 33	6 8 53	5 7 18	1 6 01	11 25 01	1 R21 34	1 21 32
23	30 1	5 22 28	6 8 41	5 7 32	1 7 57	11 27 19	1 21 26	1 21 15s
25	3 2	5 22 23	6 8 29	5 7 49	1 9 52	11 29 37	1 21 00	1 20 41
27	5 2	5 22 18	6 8 18	5 8 09	1 11 47	0 1 55	1 20 19	1 19 53
29	7 2	5 22 14	6 8 08	5 8 32	1 13 42	0 4 13	1 19 25	1 18 55
31	9 2	5 22 10	6 7 58	5 8 56	1 15 37	0 6 32	1 18 23	1 17 50
June 2	11 2	5 22 07	6 7 49	5 9 23	1 17 32	0 8 51	1 17 16	1 16 43
4	13 2	5 22 04	6 7 40	5 9 52	1 19 27	0 11 10	1 16 10	1 15 38
6	15 2	5 22 01	6 7 32	5 10 24	1 21 22	0 13 30	1 15 08	1 14 40
8	17 2	5 21 59	6 7 25	5 10 57	1 23 17	0 15 50	1 14 15	1 13 53
10	19 2	5 21 57	6 7 18	5 11 32	1 25 12	0 18 10	1 13 35	1 13 20
12	20 2	5 21 56	6 7 12	5 12 09	1 27 06	0 20 30	1 13 09	1 D13 03r
14	22 2	5 21 54	6 7 07	5 12 48	1 29 01	0 22 51	1 13 01	1 13 03
16	24 2	5 21 54	6 7 02	5 13 28	2 0 56	0 25 11	1 13 10	1 13 21
18	26 2	5 D21 53	6 6 58	5 14 10	2 2 50	0 27 52	1 13 38	1 13 58
20	29 2	5 21 54	6 6 55	5 14 54	2 4 45	0 29 54	1 14 24	1 14 53
22	1 3	5 21 54	6 6 53	5 15 40	2 6 39	1 2 15	1 15 28	1 16 06
24	3 3	5 21 55	6 6 51	5 16 27	2 8 34	1 4 37	1 16 49	1 17 37
26	6 3	5 21 56	6 6 50	5 17 15	2 10 28	1 6 58	1 18 28	1 19 24
28	8 3	5 21 58	6 D6 50	5 18 05	2 12 23	1 9 20	1 20 23	1 21 27
30	10 3	5 22 00	6 6 50	5 18 56	2 14 17	1 11 42	1 22 35	1 23 46
July 2	12 3	5 22 03	6 6 51	5 19 48	2 16 12	1 14 05	1 25 02	1 26 21
4	13 3	5 22 05	6 6 53	5 20 41	2 18 06	1 16 27	1 27 44	1 29 11
6	15 3	5 22 09	6 6 56	5 21 36	2 20 00	1 18 50	2 0 41	2 2 15
8	17 3	5 22 12	6 6 59	5 22 32	2 21 55	1 21 13	2 3 53	2 5 34
10	19 3	5 22 16	6 7 03	5 23 29	2 23 49	1 23 36	2 7 19	2 9 06
12	21 3	5 22 21	6 7 08	5 24 27	2 25 43	1 25 59	2 10 57	2 12 50
14	23 3	5 22 26	6 7 13	5 25 26	2 27 38	1 28 23	2 14 47	2 16 45
16	25 3	5 22 31	6 7 19	5 26 26	2 29 32	2 0 46	2 18 46s	2 20 49
18	27 3	5 22 36	6 7 26	5 27 27	3 1 27	2 3 10	2 22 52	2 24 59
20	30 3	5 22 42	6 7 33	5 28 29	3 3 21	2 5 34	2 27 06	2 29 13
22	2 4	5 22 48	6 7 41	5 29 32	3 5 16	2 7 59	3 1 21	3 3 29
24	4 4	5 22 55	6 7 50	6 0 35	3 7 11	2 10 23	3 5 37	3 7 44
26	6 4	5 23 02	6 7 59	6 1 40	3 9 05	2 12 47	3 9 50	3 11 56
28	8 4	5 23 09	6 8 09	6 2 45	3 11 00	2 15 12	3 14 01	3 16 04
30	10 4	5 23 17	6 8 20	6 3 52	3 12 55	2 17 37	3 18 07	3 20 08
Aug. 1	12 4	5 23 26	6 8 31	6 4 59	3 14 49	2 20 02	3 22 07	3 24 05

Longitudes of Planets

1982 A.D.

Ayanamsa on 1st Jan. : 23° 36′ 04″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	12	4	5 23 25	6 8 31	6 4 59	3 14 49	2 20 02	3 22 07s	3 24 05
3	14	4	5 23 33	6 8 43	6 6 07	3 16 44	2 22 27	3 26 01	3 27 56
5	16	4	5 23 42	6 8 55	6 7 15	3 18 39	2 24 53	3 29 50	4 1 41r
7	17	4	5 23 50	6 9 08	6 8 24	3 20 34	2 27 18	4 3 32	4 5 20
9	19	4	5 24 00	6 9 21	6 9 34	3 22 29	2 29 44	4 7 07	4 8 53
11	21	4	5 24 09	6 9 35	6 10 10	3 24 24	3 2 10	4 10 37	4 12 19
13	24	4	5 24 19	6 9 50	6 11 56	3 26 19	3 4 36	4 14 00	4 15 39
15	26	4	5 24 29	6 10 05	6 13 08	3 28 14	3 7 03	4 17 17	4 18 54
17	28	4	5 24 39	6 10 20	6 14 21	4 0 10	3 9 29	4 20 29	4 22 02
19	30	4	5 24 50	6 10 36	6 15 34	4 2 05	3 11 56	4 23 34	4 25 05
21	3	5	5 25 00	6 10 53	6 16 48	4 4 01	3 14 23	4 26 33	4 28 01
23	5	5	5 25 11	6 11 10	6 18 02	4 5 56	3 16 50	4 29 27	5 0 51
25	7	5	5 25 23	6 11 27	6 19 18	4 7 52	3 19 17	5 2 14	5 3 35
27	9	5	5 25 34	6 11 45	6 20 33	4 9 48	3 21 44	5 4 55	5 6 13
29	10	5	5 25 46	6 12 03	6 21 49	4 11 44	3 24 11	5 7 29	5 8 43
31	12	5	5 25 58	6 12 22	6 23 06	4 13 40	3 26 39	5 9 55	5 11 06
Sept. 2	14	5	5 26 10	6 12 41	6 24 23	4 15 36	3 29 07	5 12 14	5 13 21
4	16	5	5 26 22	6 13 01	6 25 41	4 17 32	4 1 34	5 14 25	5 15 27
6	18	5	5 26 35	6 13 21	6 26 59	4 19 28	4 4 02	5 16 26	5 17 22
8	20	5	5 26 47	6 13 41	6 28 18	4 21 25	4 6 31	5 18 16	5 19 07
10	22	5	5 27 00	6 14 02	6 29 37	4 23 21	4 8 59	5 19 55	5 20 39
12	24	5	5 27 13	6 14 23	7 0 57	4 25 18	4 11 27	5 21 19	5 21 56
14	27	5	5 27 26	6 14 44	7 2 17	4 27 15	4 13 56	5 22 28	5 22 56
16	29	5	5 27 40	6 15 06	7 3 38	4 29 12	4 16 25	5 23 18	5 23 36
18	1	6	5 27 53	6 15 28	7 4 59	5 1 09	4 18 54	5 23 48	5R23 54
20	3	6	5 28 07	6 15 50	7 6 21	5 3 06	4 21 33	5 23 54s	5 23 47
22	5	6	5 28 21	6 16 12	7 7 43	5 5 03	4 23 52	5 23 33	5 23 12
24	7	6	5 28 35	6 16 35	7 9 06	5 7 01	4 26 21	5 22 44	5 22 09
26	9	6	5 28 49	6 16 58	7 10 29	5 8 58	4 28 50	5 21 26	5 20 37
28	11	6	5 29 03	6 17 22	7 11 52	5 10 56	5 1 19	5 19 42	5 18 41
30	12	6	5 29 17s	6 17 46	7 13 16	5 12 54	5 3 49	5 17 36	5 16 29
Oct. 2	14	6	5 29 31	6 18 09	7 14 40	5 14 52	5 6 18	5 15 21	5 14 13
4	17	6	5 29 45	6 18 34	7 16 04	5 16 50	5 8 48	5 13 07	5 12 06
6	19	6	6 0 00	6 18 58	7 17 29	5 18 48	5 11 18	5 11 11	5 10 23r
8	21	6	6 0 14	6 19 22	7 18 55	5 20 46	5 13 48	5 9 44	5 9 15
10	23	6	6 0 29	6 19 47	7 20 20	5 22 45	5 16 18s	5 8 57	5D 8 49
12	25	6	6 0 43	6 20 12	7 21 46	5 24 43	5 18 48	5 8 52	5 9 05
14	27	6	6 0 58	6 20 37	7 23 13	5 26 42	5 21 18	5 9 29	5 10 03
16	29	6	6 1 12	6 21 02	7 24 39	5 28 41	5 23 48	5 10 46	5 11 37
18	2	7	6 1 27	6 21 28	7 26 06	6 0 40	5 26 18	5 12 36	5 13 40
20	3	7	6 1 41	6 21 53	7 27 34	6 2 39	5 28 48	5 14 51	5 16 07
22	5	7	6 1 56	6 22 19	7 29 02	6 4 39	6 1 18	5 17 28	5 18 52
24	7	7	6 2 11	6 22 45	8 0 30	6 6 38	6 3 49	5 20 19	5 21 49
26	9	7	6 2 25	6 23 11	8 1 58	6 8 38	6 6 19	5 23 22	5 24 56
28	11	7	6 2 40	6 23 37	8 3 27	6 10 38	6 8 50	5 26 31	5 28 07
30	13	7	6 2 54	6 24 03s	8 4 56	6 12 37	6 11 20	5 29 45	6 1 23
Nov. 1	15	7	6 3 09r	6 24 29	8 6 25	6 14 37	6 13 50	6 3 01	6 4 40
3	17	7	6 3 23	6 24 56	8 7 54	6 16 37	6 16 21	6 6 18s	6 7 57
5	19	7	6 3 37	6 25 22	8 9 24	6 18 38	6 18 51	6 9 36	6 11 15
7	22	7	6 3 52	6 25 48	8 10 54	6 20 38	6 21 22	6 12 53	6 14 32
9	24	7	6 4 05	6 26 15	8 12 25	6 22 38	6 23 53	6 16 10	6 17 48
11	26	7	6 4 20	6 26 41	8 13 55	6 24 39	6 26 23	6 19 25	6 21 03
13	28	7	6 4 34	6 27 08	8 15 26	6 26 40	6 28 54	6 22 40	6 24 16
15	30	7	6 4 48	6 27 34	8 16 57	6 28 41	7 1 25	6 25 53	6 27 29

CC-0. In Public Domain. Digitized by eGangotri

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	30	7	6 4 48	6 27 34s	8 16 57	6 28 41	7 1 25	6 25 53s	6 27 29
17	2	8	6 5 01	6 28 01	8 18 28	7 0 42	7 3 55	6 29 05	7 0 41
19	4	8	6 5 15	6 28 27	8 20 00	7 2 43	7 6 26	7 2 16	7 3 51
21	5	8	6 5 28	6 28 53	8 21 31	7 4 44	7 8 57	7 5 26	7 7 01
23	7	8	6 5 42	6 29 20	8 23 03	7 6 45	7 11 27	7 8 35	7 10 10
25	9	8	6 5 55	6 29 47r	8 24 35	7 8 46	7 13 58	7 11 44	7 13 18
27	11	8	7 6 08	7 0 13	8 26 08	7 10 48	7 16 29	7 14 52	7 16 26
29	13	8	6 6 20	7 0 39	8 27 40	7 12 49	7 19 00	7 17 59	7 19 33
Dec. 1	15	8	6 6 33	7 1 05	8 29 12	7 14 51	7 21 30	7 21 06	7 22 40
3	18	8	6 6 45	7 1 32	9 0 45	7 16 52	7 24 01r	7 24 13	7 25 46
5	20	8	6 6 58	7 1 58	9 2 18	7 18 54	7 26 32	7 27 20	7 28 53
7	22	8	6 7 10	7 2 23	9 3 51	7 20 56	7 29 02	8 0 26	8 1 59
9	24	8	6 7 21	7 2 49	9 5 24	7 22 58	8 1 33	8 3 22	8 5 05
11	26	8	6 7 33	7 3 15	9 6 58	7 25 00	8 4 04	8 6 38r	8 8 11
13	28	8	6 7 44	7 3 40	9 8 31	7 27 02	8 6 35	8 9 44	8 11 16
15	30	8	6 7 55	7 4 06	9 10 05	7 29 04	8 9 08	8 12 49	8 14 21
17	2	9	6 8 06	7 4 31	9 11 38	8 1 06	8 11 36	8 15 52	8 17 23
19	4	9	6 8 16	7 4 56	9 13 12	8 3 08	8 14 07	8 18 54	8 20 24
21	6	9	6 8 27	7 5 21	9 14 46	8 5 10	8 16 38	8 21 53	8 23 21
23	7	9	6 8 36	7 5 46	9 16 20	8 7 12	8 19 08	8 24 47	8 26 13
25	9	9	6 8 46	7 6 10	9 17 54	8 9 15	8 21 39	8 27 36	8 28 57
27	12	9	6 8 55	7 6 34	9 19 28	8 11 17	8 24 09	9 0 16	9 1 32
29	14	9	6 9 04	7 6 58	9 21 02	8 13 19	8 26 40	9 2 44	9 3 52
31	16	9	6 9 13	7 7 22	9 22 36	8 15 21	8 29 10	9 4 55	9 5 53
Jan. 2	18	9	6 9 21	7 7 45	9 24 10	8 17 24	9 1 41	9 6 45	9 7 29

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	2 28 53	2 29 35	7 9 05	8 1 33	6 3 05	23 36 04
February	1	2 28 55	2 27 56	7 10 25	8 2 35	6R 3 20	23 36 09
March	1	2 27 58	2 26 28	7R 10 59	8 3 13	6 3 04	23 36 12
April	1	2 25 06	2 24 49	7 10 48	8R 3 26	6 2 22	23 36 15
May	1	2 21 53	2 23 13	7 9 57	8 3 10	6 1 32	23 36 19
June	1	2 20 01	2 21 35	7 8 41	8 2 30	6 0 49	23 36 23
July	1	2 19 44	2 19 59	7 7 35	8 1 42	6D 0 31	23 36 28
August	1	2 19 40	2 18 21	7D 7 00	8 1 00	6 0 43	23 36 33
September	1	2 18 18	2 16 42	7 7 11	8D 0 40	6 1 26	23 36 37
October	1	2 15 20	2 15 07	7 8 07	8 0 50	6 2 29	23 36 40
November	1	2 12 07	2 13 28	7 9 41	8 1 30	6 3 43	23 36 43
December	1	2 10 39	2 11 53	7 11 29	8 2 28	6 4 49	23 36 47
January	1	2 10 36	2 10 14	7 13 19	8 3 38	6 5 37	23 36 53

Combustion or Heliacal Setting of Planets

Saturn :	From Oct. 1 to Nov. 1.
Jupiter :	From Oct. 31 to Nov. 24.
Mars :	—
Venus :	From Jan. 18 to 22, then from Oct. 11 to Dec. 2.
Mercury :	From Jan. 26 to Feb. 6, Mar. 24 to Apr. 20. May 24 to June 18, July 16 to Aug. 6. Sept. 20 to Oct. 7 and Nov. 3 to Dec. 11.

Retrogression of Planets

PLANET	RETROGRADE						DIRECT					
	Date			Long.			Date			Long.		
		h	m	s	°	′		h	m	s	°	′
Mercury	Jan. 23,	11	26	9	25	01	Feb. 13,	12	57	9	9	20
	May 21,	7	42	1	21	34	June. 13,	28	47	1	13	01
	Sept. 19,	16	28	5	23	54	Oct. 11,	10	54	5	8	49
Venus	(81) Dec. 31,	25	15	9	15	18	Feb. 10,	26	09	8	29	45
Mars	Feb. 20	24	44	5	25	35	May 11,	24	05	5	6	46
Jupiter	Feb. 24,	11	01	6	16	44	June 27,	23	49	6	6	50
Saturn	Jan. 31,	9	14	5	28	39	June 18	16	21	5	21	53
Uranus	Mar. 9,	25	15	7	11	01	Aug. 9,	15	53	7	6	58
Neptune	Mar 29,	21	41	8	3	26	Sept. 5,	29	29	8	0	40
Pluto	Jan. 29,	13	07	6	3	20	July 4,	17	44	6	0	31

New-Moon and Full-Moon

New Moon				Lunar months begin		Full-Moon				Hindi Months begin	
	d	h	m				d	h	m		
	—			—		Jan.	9	25	23	Māgha	Vadi
Jan.	25	10	26	Māgha	Sukla	Feb.	8	13	27	Phālguna	"
Feb.	23	26	43	Phālguna	"	Mar.	9	26	15	Caitra	"
Mar.	25	15	47	Caitra	"	Apr.	8	15	48	Vaiśākha	"
Apr.	23	25	59	Vaiṣākha	"	May	8	6	15	Jyaiṣṭha	"
May	23	10	10	Jyaiṣṭha	"	June	6	21	29	Āṣāḍha	"
June	21	17	22	Āṣāḍha	"	July	6	13	02	Śrāvaṇa	"
July	20	24	27	Śrāvana	"	Aug.	4	28	04	Bhādra	"
Aug.	19	8	15	Bhādra	"	Sept.	3	17	58	Āśvina	"
Sept.	17	17	39	Āśvina	"	Oct.	3	6	38	Kārtika	"
Oct.	17	5	34	Kārtika	"	Nov.	1	18	27	Agrahā	"
Nov.	15	20	40	Mārga	"	Dec.	1	5	51	Pauṣa	"
Dec.	15	14	48	Pauṣa	"	Dec.	30	17	03	Magha	"

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	14	8	12	Karkaṭa	on	July	16	17	05
Kumbha	on	Feb.	12	21	14	Siṁha	on	Aug.	16	25	29
Mina	on	Mar.	14	18	10	Kanyā	on	Sept.	16	25	23
Meṣa	on	Apr.	13	26	42	Tulā	on	Oct.	17	13	17
Vṛṣa	on	May	14	23	35	Vṛścika	on	Nov.	16	13	02
Mithuna	on	June	15	6	12	Dhanus	on	Dec.	15	27	38

1983 A. D. Longitude of Moon CONDENSED

Saka era 1904-05, Saṁvat 2039-40 (Apr. 14, Nov. 5), B.S. 1389-90 (Apr. 15),
Kollam era 1158-59 (Aug. 17), 57 Rudhirodgārin (Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च) . ठ) at 5-30 A.M. I.S.T.						
			Sunday	Monday	Tuesday	Wednes.	Thurs.	Friday	Satur.
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Dec. 26	10	9	0 9 27	0 23 21	1 7 43	1 22 28	2 7 31	2 22 44	3 7 56
Jan. 2	17	9	3 22 58	4 7 42	4 22 03	5 5 58	5 19 26	6 3 00	6 15 18
9	24	9	6 27 37	7 9 48	7 21 49	8 3 42	8 15 32	8 27 19	9 9 07
16	2	10	9 20 58	10 2 52	10 14 54	10 27 04	11 9 26	11 22 03	0 4 58
23	9	10	0 18 15	1 1 56	1 16 02	2 0 33	2 15 36	3 0 34	3 15 49
30	16	10	4 1 00	4 15 58	5 0 34	5 14 42	5 28 21	6 11 31	6 24 16
Feb. 6	23	10	7 6 39	7 18 46	8 0 41	8 12 30	8 24 16	9 6 03	9 17 54
13	30	10	9 29 51	10 11 55	10 24 08	11 7 00	11 19 03	0 1 49	0 14 47
20	7	11	0 28 02	1 11 35	1 25 27	2 9 40	2 24 12	3 9 00	3 23 59
27	14	11	4 9 00	4 23 53	5 8 30	5 22 43	6 6 28	6 19 46	7 2 35
Mar. 6	21	11	7 15 02	7 27 11	8 9 07	8 20 55	9 2 42	9 14 31	9 26 26
13	28	11	10 8 31	10 20 47	11 3 14	11 15 54	11 28 45	0 11 48	0 25 02
20	5	12	1 8 27	1 22 04	2 5 53	2 19 55	3 4 10	3 18 36	4 3 10
27	12	12	4 17 46	5 2 18	5 16 35	6 0 40	6 14 20	6 27 36	7 10 27
Apr. 3	19	12	7 22 56	8 5 08	8 17 06	8 28 57	9 10 46	9 22 37	10 4 37
10	26	12	10 16 48	10 29 13	11 11 54	11 24 51	0 8 04	0 21 29	1 5 06
17	3	1	1 18 52	2 2 46	2 16 45	3 0 50	3 14 58	3 29 10	4 13 22
24	10	1	4 27 32	5 11 36	5 25 30	6 9 10	6 22 32	7 5 36	7 18 20
May 1	17	1	8 0 46	8 12 56	8 24 56	9 6 48	9 18 38	10 0 32	10 12 33
8	24	1	10 24 47	11 7 17	11 20 07	0 3 16	0 16 45	1 0 32	1 14 33
15	31	1	1 28 46	2 13 04	2 27 25	3 11 44	3 25 59	4 10 08	4 24 09
22	7	2	5 8 00	5 21 39	6 5 07	6 18 20	7 1 20	7 14 05	7 26 35
29	14	2	8 8 52	8 20 58	9 2 55	9 14 47	9 26 38	10 8 31	10 20 33
June 5	21	2	11 2 46	11 15 17	11 28 07	0 11 20	0 24 58	1 8 58	1 23 17
12	28	2	2 7 53	2 22 37	3 7 23	3 22 05	4 6 36	4 20 53	5 4 53
19	4	3	5 18 35	6 1 58	6 15 06	6 27 58	7 10 37	7 23 03	8 5 18
26	11	3	8 17 24	8 29 23	9 11 16	9 23 07	10 4 58	10 16 52	10 28 53
July 3	18	3	11 11 05	11 23 33	0 6 20	0 19 30	1 3 06	1 17 08	2 1 35
10	25	3	2 16 23	3 1 24	3 16 32	4 1 35	4 16 23	5 0 56	5 15 04
17	1	4	5 28 46	6 12 05	6 25 02	7 7 40	7 20 04	8 2 15	8 14 18
24	8	4	8 26 15	9 8 08	9 19 59	10 1 50	10 13 43	10 25 40	11 7 43
31	15	4	11 19 56	0 2 23	0 15 06	0 28 10	1 11 38	1 25 38	2 9 55
Aug. 7	22	4	2 24 42	3 9 47	3 25 03	4 10 18	4 25 22	5 10 07	5 24 25
14	29	4	6 8 14	6 21 35	7 4 30	7 17 03	7 29 19	8 11 23	8 23 19
21	4	5	9 5 11	9 17 01	9 28 52	10 10 46	10 22 44	11 4 48	11 16 58
28	11	5	11 29 18	0 11 48	0 24 33	1 7 35	1 20 57	2 4 42	2 18 52
Sept. 4	18	5	3 3 26	3 18 20	4 3 28	4 18 40	5 3 45	5 18 33	6 2 56
11	25	5	6 16 53	7 0 19	7 13 17	7 25 51	8 8 07	8 20 09	9 2 03
18	1	6	9 13 53	9 25 44	10 7 37	10 19 36	11 1 43	11 13 57	11 26 21
25	8	6	0 8 54	0 21 37	1 4 32	1 17 40	2 1 03	2 14 44	2 28 43
Oct. 2	15	6	3 13 02	3 27 37	4 12 24	4 27 17	5 12 07	5 26 44	6 11 03
9	22	6	6 24 57	7 8 24	7 21 25	8 4 03	8 16 21	8 28 25	9 10 20
16	29	6	9 22 11	10 4 03	10 16 00	10 28 04	11 10 19	11 22 46	0 5 25
23	6	7	0 18 17	1 1 20	1 14 35	1 28 01	2 11 37	2 25 25	3 9 24
30	13	7	3 23 33	4 7 50	4 22 14	5 6 49	5 21 03	6 5 16	6 19 15
Nov. 6	20	7	7 2 56	7 16 15	7 29 13	8 11 51	8 24 11	9 6 17	9 18 14
13	27	7	10 0 06	10 11 59	10 23 57	11 6 04	11 18 24	0 0 59	0 13 52
20	4	8	0 27 01	1 10 28	1 24 08	2 8 01	2 22 03	3 6 11	3 20 22
27	11	8	4 4 35	4 18 46	5 2 53	5 16 55	6 0 49	6 14 33	6 28 04
Dec 4	18	8	7 11 22	7 24 24	8 7 11	8 19 42	9 2 00	9 14 05	9 26 08
11	25	8	10 7 55	10 19 47	11 1 43	11 13 49	11 26 08	0 8 44	0 21 42
18	2	9	1 5 01	1 18 44	2 2 47	2 17 08	3 1 40	3 16 18	4 0 54
25	9	9	4 15 24	4 29 43	5 13 47	5 27 37	6 11 11	6 24 30	7 7 36
Jan. 1	16	9	7 20 29	8 3 10	8 15 39	8 27 59	9 10 09	9 22 11	10 4 07

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 36′ 53″

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.																				
			श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	17	9	6	9	17	7	7	34	9	23	23	8	16	25	9	0	26	9	5	53	9	6	45
3	20	9	6	9	25	7	7	57	9	24	57	8	18	25	9	2	56	9	7	29	9	8	07
5	22	9	6	9	32	7	8	20	9	26	32	8	20	27	9	5	27	9	8	33	9	8	51
7	24	9	6	9	41	7	8	43	9	28	06	8	22	29	9	7	57	9R	8	58	9	8	53
9	26	9	6	9	48	7	9	05	9	29	40	8	24	32	9	10	28	9	8	37	9	8	09
11	28	9	6	9	55	7	9	27	10	1	14	8	26	34	9	12	58	9	7	30s	9	6	39
13	29	9	6	10	01	7	9	49	10	2	49	8	28	36	9	15	28	9	5	39	9	4	31
15	1	10	6	10	07	7	10	10	10	4	23	9	0	39	9	17	58	9	3	17	9	2	⊙00
17	3	10	6	10	13	7	10	32	10	5	57	9	2	41	9	20	29	9	0	41	8	29	23
19	5	10	6	10	18	7	10	52	10	7	31	9	4	43	9	22	59	8	28	09	8	27	01
21	7	10	6	10	23	7	11	13	10	9	06	9	6	45	9	25	29	8	25	59r	8	25	07
23	9	10	6	10	27	7	11	32	10	10	40	9	8	47	9	27	59	8	24	21	8	23	45
25	11	10	6	10	31	7	11	52	10	12	14	9	10	49	10	0	29	8	23	19	8	23	02
27	13	10	6	10	35	7	12	11	10	13	48	9	12	51	10	2	59	8D	22	53	8	22	52
29	16	10	6	10	38	7	12	30	10	15	22	9	14	53	10	5	28	8	23	00	8	23	14
31	18	10	6	10	41	7	12	48	10	16	56	9	16	55	10	7	58	8	23	35	8	24	02
Feb. 2	20	10	6	10	43	7	13	05	10	18	30	9	18	57	10	10	27	8	24	34	8	25	12
4	22	10	6	10	45	7	13	23	10	20	03	9	20	59	10	12	57	8	25	56	8	26	40
6	24	10	6	10	47	7	13	39	10	21	37	9	23	00	10	15	26	8	27	30	8	28	23
8	26	10	6	10	48	7	13	56	10	23	11	9	25	02	10	17	56	8	29	20	9	0	20
10	28	10	6	10	49	7	14	11	10	24	44	9	27	03	10	20	25	9	1	22	9	2	27
12	30	10	6R	10	49	7	14	26	10	26	18	9	29	05	10	22	53	9	3	34	9	4	43
14	1	11	6	10	49	7	14	41	10	27	51	10	1	06	10	25	22	9	5	54	9	7	07
16	3	11	6	10	49	7	14	55	10	29	24	10	3	07	10	27	51	9	8	21	9	9	38
18	5	11	6	10	48	7	15	08	11	0	57	10	5	09	11	0	20	9	10	55	9	12	15
20	7	11	6	10	46	7	15	21	11	2	30	10	7	10	11	2	48	9	13	35	9	14	57
22	9	11	6	10	44	7	15	34	11	4	03	10	9	11	11	5	16	9	16	20	9	17	45
24	12	11	6	10	42	7	15	45	11	5	36	10	11	11	11	7	44	9	19	10	9	20	37
26	14	11	6	10	40	7	15	56	11	7	09	10	13	12	11	10	12	9	22	05	9	23	34
28	16	11	6	10	37	7	16	07	11	8	41	10	15	13	11	12	40	9	25	04	9	26	35
Mar. 2	18	11	6	10	33	7	16	16	11	10	13	10	17	13	11	15	07	9	28	07	9	29	41
4	21	11	6	10	30	7	16	25	11	11	45	10	19	13	11	17	35	10	1	15	10	2	51
6	22	11	6	10	25	7	16	34	11	13	17	10	21	13	11	20	02	10	4s	27	10	6	05
8	24	11	6	10	21	7	16	41	11	14	49	10	23	14	11	22	29	10	7	44	10	9	24
10	26	11	6	10	16	7	16	48	11	16	21	10	25	14	11	24	56	10	11	05	10	12	47
12	28	11	6	10	11	7	16	55	11	17	52	10	27	13	11	27	22	10	14	30	10	16	14
14	30	11	6	10	05	7	17	00	11	19	24	10	29	13	11	29	45	10	18	00	10	19	47
16	2	11	6	9	59	7	17	05	11	20	55	11	1	13	0	2	14	10	21	35	10	23	24
18	4	11	6	9	53	7	17	09	11	22	26	11	3	12	0	4	40	10	25	14	10	27	06
20	6	11	6	9	47	7	17	12	11	23	57	11	5	12	0	7	06	10	28	59	11	0	53
22	8	11	6	9	40	7	17	15	11	25	27	11	7	11	0	9	31	11	2	48	11	4	44
24	10	11	6	9	33	7	17	17	11	26	58	11	9	10	0	11	56	11	6	42	11	8	40
26	12	11	6	9	25	7	17	18	11	28	28	11	11	09	0	14	21	11	10	⊙40	11	12	40
28	15	11	6	9	18	7R	17	18	11	29	58	11	13	08	0	16	45	11	14	42	11	16	44
30	17	11	6	9	10	7	17	18	0	1	28	11	15	06	0	19	09	11	18	46	11	20	49
Apr. 1	19	11	6	9	02	7	17	17	0	2	58	11	17	05	0	21	33	11	22	53	11	24	57
3	21	11	6	8	54	7	17	15	0	4	27	11	19	03	0	23	57	11	26	59	11	29	01r
5	23	11	6	8	45	7	17	12	0	5	57	11	21	01	0	26	20	0	1	02	0	3	02
7	24	11	6	8	37	7	17	09	0	7	26s	11	23	00	0	28	43	0	5	00	0	6	56
9	26	11	6	8	28	7	17	05	0	8	55	11	24	58	1	1	05	0	8	50	0	10	41
11	28	11	6	8	19	7	17	00	0	10	24	11	26	56	1	3	27	0	12	29	0	14	13
13	30	11	6	8	10	7	16	55	0	11	52	11	28	53	1	5	49	0	15	54	0	17	31
15	2	12	6	8	01	7	16	48	0	13	21	0	0	51	1	8	11	0	19	03	0	20	31
17	4	12	6	7	52	7	16	41	0	14	49	0	2	48	1	10	32	0	21	54	0	23	12

1983 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 36′ 53″

Date	*Tithi* & *Month*	श ♄ श	वृ ♃ वृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	♀ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr 17	4 12	6*R* 7 52	7*R* 16 41	0 14 49s	0 2 48	1 10 32	0 21 54	0 23 1
19	6 12	6 7 43	7 16 34	0 16 17	0 4 46	1 12 52	0 24 25	0 25 33
21	9 12	6 7 34	7 16 25	0 17 44	0 6 43	1 15 12	0 26 36	0 27 33
23	11 12	6 7 25	7 16 16	0 19 12	0 8 40	1 17 32	0 28 25	0 29 11
25	13 12	6 7 16	7 16 07	0 20 39	0 10 37	1 19 52	0 29 51	1 0 26
27	15 12	6 7 07	7 15 57	0 22 06	0 12 34	1 22 10	1 0 55	1 1 18
29	17 12	6 6 57	7 15 46	0 23 33	0 14 30	1 24 29	1 1 36	1 1 48
May 1	19 12	6 6 48	7 15 35	0 25 00	0 16 27	1 26 46	1R 1 55	1 1 56
3	21 12	6 6 40	7 15 23	0 26 27	0 18 23	1 29 04	1 1 51	1 1 42
5	23 12	6 6 30	7 15 11	0 27 53	0 20 19	2 1 20	1 1 28s	1 1 10
7	25 12	6 6 22	7 14 58	0 29 19	0 22 16	2 3 36	1 0 47	1 0 21
9	27 12	6 6 13	7 14 45	1 0 45	0 24 12	2 5 52	0 29 52	0 29 20
11	29 12	6 6 05	7 14 31	1 2 11	0 26 08	2 8 07	0 28 46	0 28 11
13	1 1	6 5 57	7 14 17	1 3 36	0 28 04	2 10 21	0 27 35	0 26 59
15	3 1	6 5 49	7 14 03	1 5 02	1 0 00	2 12 35	0 26 23	0 25 49
17	5 1	6 5 41	7 13 49	1 6 27	1 1 55	2 14 48	0 25 16	0 24 40
19	7 1	6 5 33	7 13 34	1 7 52	1 3 51	2 17 00	0 24 18	0 23 54
21	10 1	6 5 26	7 13 19	1 9 17	1 5 46	2 19 11	0 23 33	0 23 16
23	12 1	6 5 19	7 13 04	1 10 41	1 7 42	2 21 22	0 23 02	0 22 53
25	14 1	6 5 12	7 12 49	1 12 05	1 9 37	2 23 31	0D 22 49r	0 22 48
27	16 1	6 5 06	7 12 33	1 13 30	1 11 32	2 25 40	0 22 53	0 23 02
29	18 1	6 4 59	7 12 18	1 14 53	1 13 28	2 27 48	0 23 15	0 23 33
31	19 1	6 4 53	7 12 03	1 16 17	1 15 23	2 29 54	0 23 55	0 24 22
June 2	21 1	6 4 48	7 11 48	1 17 41	1 17 18	3 2 00	0 24 52	0 25 27
4	23 1	6 4 42	7 11 33	1 19 04	1 19 13	3 4 04	0 26 06	0 26 49
6	25 1	6 4 37	7 11 18	1 20 27	1 21 07	3 6 07	0 27 35	0 28 26
8	27 1	6 4 33	7 11 03	1 21 50	1 23 02	3 8 09	0 29 20	1 0 18
10	29 1	6 4 28	7 10 48	1 23 13	1 24 57	3 10 10	1 1 19	1 2 25
12	1 2	6 4 25	7 10 34	1 24 36	1 26 52	3 12 09	1 3 31	1 4 42
14	4 2	6 4 21	7 10 20	1 25 58	1 28 47	3 14 07	1 5 57	1 7 15
16	6 2	6 4 18	7 10 06	1 27 21	2 0 41	3 16 02	1 8 35	1 9 59
18	8 2	6 4 15	7 9 53	1 28 43	2 2 36	3 17 57	1 11 26	1 12 57
20	10 2	6 4 13	7 9 40	2 0 05	2 4 30	3 19 49	1 14 30	1 16 06
22	12 2	6 4 10	7 9 28	2 1 26	2 6 25	3 21 39	1 17 45	1 19 27
24	14 2	6 4 09	7 9 16	2 2 48	2 8 19	3 23 27	1 21 13	1 23 00
26	16 2	6 4 08	7 9 04	2 4 09	2 10 14	3 25 13	1 24 51	1 26 45
28	18 2	6 4 07	7 8 53	2 5 30	2 12 08	3 26 56	1 28 41	2 0 39
30	20 2	6 4 06	7 8 43	2 6 52	2 14 02	3 28 37	2 2 40s	2 4 43
July 2	22 2	6D 4 06	7 8 33	2 8 12	2 15 57	4 0 15	2 6 47	2 8 53
4	23 2	6 4 06	7 8 24	2 9 33	2 17 51	4 1 50	2 11 01	2 13 10
6	25 2	6 4 07	7 8 16	2 10 54	2 19 46	4 3 21	2 15 19	2 17 29
8	28 2	6 4 08	7 8 08	2 12 14	2 21 40	4 4 49	2 19 39	2 21 49
10	30 2	6 4 10	7 8 00	2 13 34	2 23 34	4 6 13	2 23 59	2 26 08
12	2 3	6 4 11	7 7 54	2 14 54	2 25 29	4 7 34	2 28 17	3 0 24
14	5 3	6 4 14	7 7 48	2 16 14	2 27 23	4 8 49	3 2 30	3 4 35
16	7 3	6 4 16	7 7 43	2 17 34	2 29 18	4 10 00	3 6 38	3 8 40
18	9 3	6 4 19	7 7 38	2 18 54	3 1 12	4 11 06	3 10 40	3 12 39
20	11 3	6 4 23	7 7 35	2 20 13	3 3 07	4 12 06	3 14 36r	3 16 31
22	13 3	6 4 27	7 7 32	2 21 32	3 5 01	4 13 00	3 18 24	3 20 16
24	15 3	6 4 31	7 7 29	2 22 52	3 6 56	4 13 48	3 22 06	3 23 54
26	16 3	6 4 35	7 7 28	2 24 11r	3 8 50	4 14 28	3 25 40	3 27 25
28	18 3	6 4 40	7 7 27	2 25 29	3 10 45	4 15 01	3 29 08	4 0 49
30	20 3	6 4 46	7D 7 27	2 26 48	3 12 40	4 15 26	4 2 28	4 4 06
Aug 1	22 3	6 4 51	7 7 27	2 28 07	3 14 34	4 15 43	4 5 42	4 7 16

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 36′ 53″

Date	*Tithi & Month*		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ बृ	मं ♂ मं	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	22	3	6 4 51	7 7 27	2 28 07	3 14 34	4 15 43	4 5 42	4 7 16
3	24	3	6 4 57	7 7 29	2 29 25	3 16 29	4 15 52	4 8 48	4 10 19
5	26	3	6 5 04	7 7 31	3 0 43	3 18 24	4 15 51	4 11 48	4 13 15
7	28	3	6 5 10	7 7 34	3 2 02	3 20 19	4 15 41	4 14 41	4 16 04
9	1	4	6 5 17	7 7 37	3 3 20	3 22 14	4 15 21	4 17 26	4 18 46
11	3	4	6 5 25	7 7 41	3 4 37	3 24 09	4 14 52	4 20 04	4 21 20
13	5	4	6 5 32	7 7 46	3 5 55	3 26 04	4 14 14	4 22 34	4 23 46
15	7	4	6 5 40	7 7 52	3 7 13	3 28 00	4 13 27s	4 24 54	4 26 03
17	9	4	6 5 49	7 7 58	3 8 30	3 29 55	4 12 31	4 27 09	4 28 11
19	11	4	6 5 57	7 8 06	3 9 48	4 1 50	4 11 29	4 29 11	5 0 09
21	13	4	6 6 06	7 8 13	3 11 05	4 3 46	4 10 21	5 1 04	5 1 55
23	15	4	6 6 15	7 8 22	3 12 22	4 5 41	4 9 09	5 2 44	5 3 39
25	17	4	6 6 25	7 8 31	3 13 39	4 7 37	4 7 55	5 4 10	5 4 48
27	19	4	6 6 35	7 8 40	3 14 56	4 9 33	4 6 41	5 5 29	5 5 59
29	21	4	6 6 45	7 8 51	3 16 12	4 11 29	4 5 28r	5 6 17	5 6 37
31	23	4	6 6 55	7 9 02	3 17 29	4 13 24	4 4 18	5 6 53	5 7 03
Sept. 2	25	4	6 7 06	7 9 13	3 18 45	4 15 21	4 3 14	5R 7 07	5 7 06s
4	27	4	6 7 16	7 9 25	3 20 02	4 17 17	4 2 17	5 6 59	5 6 45
6	29	4	6 7 28	7 9 38	3 21 18	4 19 13	4 1 27	5 6 25	5 5 59
8	2	5	6 7 39	7 9 52	3 22 34	4 21 10	4 0 45	5 5 26	5 4 47
10	4	5	6 7 50	7 10 05	3 23 50	4 23 06	4 0 13	5 4 03	5 3 13
12	6	5	6 8 02	7 10 20	3 25 06	4 25 03	3 29 51	5 2 18	5 1 20
14	8	5	6 8 14	7 10 35	3 26 21	4 27 00	3 29 38	5 0 20	4 29 18
16	10	5	6 8 26	7 10 51	3 27 37	4 28 57	3D29 34	4 28 16	4 27 15
18	12	5	6 8 38	7 11 07	3 28 52	5 0 54	3 29 40	4 26 18	4 25 25
20	13	5	6 8 51	7 11 23	4 0 08	5 2 51	3 29 55	4 24 38	4 23 58r
22	15	5	6 9 04	7 11 40	4 1 23	5 4 48	4 0 19	4 23 26	4 23 03
24	17	5	6 9 17	7 11 58	4 2 38	5 6 45	4 0 51	4D22 49	4 22 45
26	19	5	6 9 30	7 12 16	4 3 53	5 8 43	4 1 31	4 22 52	4 23 08
28	21	5	6 9 43	7 12 34	4 5 07	5 10 40	4 2 18	4 23 34	4 24 10
30	23	5	6 9 56	7 12 53	4 6 22	5 12 38	4 3 11	4 24 54	4 25 47
Oct. 2	25	5	6 10 10	7 13 13	4 7 37	5 14 36	4 4 12	4 26 47	4 27 54
4	28	5	6 10 23	7 13 32	4 8 51	5 16 34	4 5 18	4 29 07	5 0 26
6	30	5	6 10 37	7 13 52	4 10 05	5 18 33	4 6 29	5 1 50	5 3 18
8	2	6	6 10 51	7 14 13	4 11 20	5 20 31	4 7 46	5 4 49	5 6 23
10	4	6	6 11 05	7 14 34	4 12 34	5 22 30	4 9 07	5 8 00	5 9 39
12	6	6	6 11 19	7 14 55	4 13 48	5 24 28	4 10 33	5 11 19	5 13 01
14	8	6	6 11 33s	7 15 17	4 15 01	5 26 27	4 12 03	5 14 43	5 16 26
16	10	6	6 11 47	7 15 39	4 16 15	5 28 26	4 13 36	5 18 09	5 19 53
18	12	6	6 12 01	7 16 02	4 17 28	6 0 25	4 15 13	5 21 37	5 23 20
20	14	6	6 12 15	7 16 24	4 18 42	6 2 24	4 16 53	5 25 04	5 26 47
22	16	6	6 12 30	7 16 47	4 19 55	6 4 23	4 18 37	5 28 29	6 0 12
24	18	6	6 12 44	7 17 11	4 21 08	6 6 23	4 20 23	6 1 54	6 3 25
26	20	6	6 12 59	7 17 34	4 22 21	6 8 22	4 22 11	6 5 18	6 6 57
28	22	6	6 13 13	7 17 58	4 23 33	6 10 23	4 24 03	6 8 37	6 10 16
30	24	6	6 13 28	7 18 22	4 24 46	6 12 22	4 25 56	6 11 55	6 13 34
Nov. 1	26	6	6 13 42	7 18 47	4 25 59	6 14 22	4 27 52	6 15 12	6 16 49
3	28	6	6 13 56	7 19 11	4 27 11	6 16 22	4 29 50	6 18 26	6 20 03
5	1	7	6 14 11	7 19 36	4 28 23	6 18 22	5 1 50	6 21 39	6 23 15
7	3	7	6 14 25	7 20 01	4 29 35	6 20 23	5 3 51	6 24 50	6 26 25
9	5	7	6 14 40	7 20 27	5 0 47	6 22 23	5 5 54	6 28 00	6 29 34
11	6	7	6 14 54	7 20 52	5 1 58	6 24 24	5 7 59	7 1 08	7 2 42
13	8	7	6 15 09r	7 21 18	5 3 09	6 26 24	5 10 05	7 4 15	7 5 48
15	10	7	6 15 23	7 21 44	5 4 21	6 28 25	5 12 12	7 7 20	7 8 53

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			श ♄ श	बृ ♃ ह	म ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
			s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov 15	10	7	6 15 23	7 21 44	5 4 21	6 28 25	5 12 12	7 7 20s	7 8 53
17	12	7	6 15 37	7 22 10	5 5 32	7 0 26	5 14 21	7 10 25	7 11 57
19	14	7	6 15 51	7 22 36	5 6 42	7 2 27	5 16 31	7 13 29	7 15 00
21	16	7	6 16 05	7 23 02	5 7 53	7 4 28	5 18 42	7 16 31	7 18 02
23	18	7	6 16 19	7 23 29	5 9 03	7 6 29	5 20 54	7 19 32r	7 21 03
25	20	7	6 16 33	7 23 55	5 10 13	7 8 30	5 23 07	7 22 33	7 24 02
27	23	7	6 16 47	7 24 22	5 11 23	7 10 32	5 25 21	7 25 32	7 27 01
29	25	7	6 17 00	7 24 49	5 12 33	7 12 33	5 27 36	7 28 29	7 29 57
Dec. 1	27	7	6 17 14	7 25 16s	5 13 43	7 14 35	5 29 52	8 1 24	8 2 51
3	29	7	6 17 28	7 25 43	5 14 52	7 16 37	6 2 09	8 4 17	8 5 42
5	1	8	6 17 40	7 26 10	5 16 01	7 18 38	6 4 27	8 7 06	8 8 29
7	3	8	6 17 53	7 26 37	5 17 10	7 20 40	6 6 45	8 9 51	8 11 11
9	5	8	6 18 06	7 27 04	5 18 18	7 22 43	6 9 03	8 12 29	8 13 45
11	7	8	6 18 19	7 27 32	5 19 26	7 24 44	6 11 23	8 14 58	8 16 09
13	8	8	6 18 31	7 27♂59	5 20 34	7 26 46	6 13 43	8 17 16	8 18 19
15	10	8	6 18 43	7 28 26	5 21 41	7 28 48	6 16 03	8 19 18	8 20 12
17	12	8	6 18 56	7 28 53	5 22 49	8 0 50	6 18 24	8 21 00	8 21 41
19	14	8	6 19 07	7 29 21	5 23 56	8 2 52	6 20 47	8 22 15	8 22 40
21	17	8	6 19 19	7 29 48	5 25 02	8 4 54	6 23 08	8 22 56	8R23 02
23	19	8	6 19 30	8 0 15	5 26 08	8 6 57	6 25 30	8 22 56	8 22 40
25	21	8	6 19 42	8 0 42	5 27 14	8 8 59	6 27 53	8 22 11	8 21 31s
27	23	8	6 19 53	8 1 09r	5 28 20	8 11 01	7 0 16	8 20 40	8 19 38
29	25	8	6 20 03	8 1 36	5 29 25	8 13 03	7 2 40	8 18 28	8 17 12
31	27	8	6 20 14	8 2 03	6 0 30	8 15 06	7 5 04	8 15♂52	8 14 30
Jan. 2	29	8	6 20 24	8 2 30	6 1 34	8 17 08	7 7 28	8 13 09	8 11 53

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam.
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	2 10 36	2 10 14	7 13 19	8 3 38	6 5 37	23 36 53
February	1	2 10 09	2 8 35	7 14 44	8 4 41	6R 5 55	23 36 58
March	1	2 8 07	2 7 07	7R 15 25	8 5 21	6 5 42	23 37 02
April	1	2 4 40	2 5 28	7 15 22	8R 5 37	6 5 01	23 37 04
May	1	2 2 07	2 3 53	7 14 35	8 5 23	6 4 11	23 37 08
June	1	2 1 20	2 2 14	7 13 22	8 4 44	6 3 27	23 37 13
July	1	2 1 23	2 0 39	7 12 13	8 3 56	6D 3 06	23 37 18
August	1	2 0 41	1 29 00	7D 11 31	8 3 13	6 3 16	23 37 23
September	1	1 28 13	1 27 22	7 11 35	8D 2 51	6 3 56	23 37 27
October	1	1 24 57	1 25 46	7 12 24	8 2 59	6 4 57	23 37 30
November	1	1 22 40	1 24 08	7 13 53	8 3 36	6 6 11	23 37 34
December	1	1 22 11	1 22 33	7 15 40	8 4 34	6 7 19	23 37 38
January	1	1 22 10	1 20 54	7 17 31	8 5 43	6 8 10	23 37 44

Combustion or Heliacal Setting of Planets

Saturn : From Oct. 14 to Nov. 13.

Jupiter : From Dec. 2 to 26.

Mars : From Apr. 8 to July 25.

Venus : From Aug. 15 to 29.

Mercury : From Jan. 11 to Jan. 21, Mar. 6 to Apr. 4, May 5 to 25, June 30 to July 20, Sept. 3 to Sept. 21, Oct. 16 to Nov. 23 and Dec. 26 to Jan. 5 (1984).

Retrogression of Planets

PLANET	RETROGRADE Date		*h*	*m*	Long. *s*	°	′	DIRECT Date		*h*	*m*	Long. *s*	°	′
Mercury	Jan.	7,	8	20	9	8	58	Jan.	27,	19	02	8	22	52
	May	1,	22	13	1	1	56	May.	25,	18	18	0	22	48
	Sept.	2,	12	04	5	7	07	Sept.	24,	26	18	4	22	45
	Dec.	22,	6	09	8	23	02	('84) Jan.	11,	6	24	8	6	45
Venus	Aug.	3,	25	12	4	15	52	Sept.	15,	22	54	3	29	34
Mars	—		—			—		—		—			—	
Jupiter	Mar.	28,	5	42	7	17	18	July	29,	12	44	7	7	27
Saturn	Feb.	12,	16	22	6	10	49	July	1,	17	05	6	4	06
Uranus	Mar.	14,	18	43	7	15	30	Aug.	14,	14	03	7	11	27
Neptune	Apr.	1,	9	29	8	5	37	Sept.	8,	16	17	8	2	50
Pluto	Feb.	1,	11	13	6	5	55	July	7,	13	48	6	3	06

New-Moon and Full-Moon

New-Moon	*d*	*h*	*m*	Lunar months begin		Full-Moon	*d*	*h*	*m*	Hindi Months begin	
Jan.	14	10	38	Māgha	Sukla	Jan.	28	27	56	Phālguna	Vadi
Feb.	13	6	02	Phālguna (*Mala*)		Feb.	27	14	28	Phālguna (*Adhika*)	"
Mar.	14	23	13	Phalguna (*Suddha*)		Mar.	28	24	57	Caitra	"
Apr.	13	13	28	Caitra	"	Apr.	27	12	01	Vaiśākha	"
May	12	24	55	Vaiśākha	"	May	26	24	18	Jyaiṣṭha	"
June	11	10	07	Jyaiṣṭha	"	June	25	14	02	Āṣāḍha	"
July	10	17	48	Āṣāḍha	"	July	24	28	57	Śrāvaṇa	"
Aug.	8	24	48	Śrāvana	"	Aug.	23	20	29	Bhādra	"
Sept.	7	8	05	Bhādra	"	Sept.	22	12	06	Āśvina	"
Oct.	6	16	46	Āśvina	"	Oct.	21	27	23	Kārtika	"
Nov.	4	27	51	Kārtika	"	Nov.	20	17	59	Agrahā	"
Dec.	4	17	56	Agrahā	"	Dec.	20	7	30	Pauṣa	"

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	14	14	21	Karkaṭa	on	July	16	23	09
Kumbha	on	Feb.	12	27	20	Simha	on	Aug.	17	7	36
Mina	on	Mar.	14	24	15	Kanyā	on	Sept.	17	7	33
Meṣa	on	Apr.	14	8	46	Tulā	on	Oct.	17	19	28
Vṛṣa	on	May	15	5	39	Vṛścika	on	Nov.	16	19	52
Mithuna	on	June	15	12	16	Dhanus	on	Dec.	16	9	45

Kirtikanṭ Sharma Collection, Najafgarh

Saka era 1905-06, Saṁvat 2040-41 (Apr. 2, Oct. 25), B.S. 1390-91 (Apr. 14), Kollam era 1159-60 (Aug. 17), 58 Raktākṣba (Apr. 2, Apr. 13).

Date	Beng. Date		*Nirayana* Long. of Moon (च ☽ ट) at 5-30 A.M. I.S.T.																				
			Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Jan. 1	16	9	7	20	29	8	3	10	8	15	39	8	27	59	9	10	03	9	22	11	10	4	07
8	23	9	10	15	58	10	27	49	11	9	44	11	21	46	0	4	00	0	16	31	0	29	24
15	1	10	1	12	42	1	26	28	2	10	41	2	25	18	3	10	14	3	25	19	4	10	23
22	8	10	4	25	18	5	9	56	5	24	11	6	8	03	6	21	31	7	4	38	7	17	28
29	15	10	8	0	03	8	12	26	8	24	40	9	6	47	9	18	48	10	0	44	10	12	37
Feb. 5	22	10	10	24	29	11	6	20	11	18	15	0	0	16	0	12	27	0	24	52	1	7	38
12	29	10	1	20	48	2	4	26	2	18	34	3	3	11	3	18	11	4	3	28	4	18	50
19	6	11	5	4	04	5	19	01	6	3	33	6	17	38	7	1	11	7	14	20	7	27	05
26	13	11	8	9	33	8	21	47	9	3	51	9	15	49	9	27	43	10	9	35	10	21	27
Mar. 4	20	11	11	3	20	11	15	15	11	27	15	0	9	20	0	21	34	1	4	01	1	16	44
11	27	11	1	29	48	2	13	17	2	27	13	3	11	37	3	26	26	4	11	35	4	26	53
18	4	12	5	12	11	5	27	15	6	11	57	6	26	12	7	9	56	7	23	13	8	6	03
25	11	12	8	18	33	9	0	46	9	18	47	9	24	42	10	6	33	10	18	24	11	0	17
Apr 1	18	12	11	12	14	11	24	16	0	6	24	0	18	41	1	1	06	1	13	43	1	26	34
8	25	12	2	9	41	2	23	08	3	6	56	3	21	07	4	5	39	4	20	27	5	5	26
15	2	1	5	20	27	6	5	19	6	19	57	7	4	12	7	18	00	8	1	22	8	14	19
22	9	1	8	26	54	9	9	11	9	21	15	10	3	11	10	15	03	10	26	55	11	8	50
29	16	1	11	20	52	0	3	02	0	15	23	0	27	54	1	10	37	1	23	32	2	6	41
May 6	23	1	2	20	03	3	3	40	3	17	31	4	1	36	4	15	54	5	0	22	5	14	56
13	30	1	5	29	30	6	13	58	6	28	15	7	12	16	7	25	57	8	9	16	8	22	13
20	6	2	9	4	51	9	17	11	9	29	18	10	11	16	10	23	09	11	5	03	11	17	01
27	13	2	11	29	06	0	11	24	0	23	55	1	6	42	1	19	45	2	3	04	2	16	37
June 3	20	2	3	0	23	3	14	20	3	28	26	4	12	36	4	26	50	5	11	05	5	25	17
10	27	2	6	9	25	6	23	25	7	7	16	7	20	53	8	4	16	8	17	23	9	0	13
17	3	3	9	12	47	9	25	06	10	7	13	10	19	11	11	1	05	11	12	58	11	24	58
24	10	3	0	7	04	0	19	25	1	2	03	1	15	01	1	28	21	2	12	01	2	26	00
July 1	17	3	3	10	14	3	24	38	4	9	06	4	23	33	5	7	53	5	22	05	6	6	05
8	24	3	6	19	54	7	3	31	7	16	57	8	0	10	8	13	11	8	26	00	9	8	37
15	31	3	9	21	02	10	3	15	10	15	18	10	27	15	11	9	07	11	20	59	0	2	55
22	6	4	0	15	01	0	27	21	1	10	00	1	23	03	2	6	31	2	20	26	3	4	44
29	13	4	3	19	22	4	4	12	4	19	05	5	3	53	5	18	29	6	2	48	6	16	48
Aug. 5	20	4	7	0	29	7	13	52	7	26	59	8	9	53	8	22	35	9	5	06	9	17	28
12	27	4	9	29	42	10	11	47	10	23	45	11	5	38	11	17	29	11	29	19	0	11	14
19	3	5	0	23	17	1	5	34	1	18	11	2	1	11	2	14	39	2	28	36	3	13	02
26	10	5	3	27	52	4	13	58	4	28	11	5	13	19	5	28	12	6	12	45	6	26	53
Sept. 2	17	5	7	10	37	7	23	57	8	6	57	8	19	40	9	2	09	9	14	27	9	26	37
9	24	5	10	8	40	10	20	37	11	2	31	11	14	22	11	26	12	0	8	04	0	20	00
16	31	5	1	2	05	1	14	21	1	26	55	2	9	51	2	23	13	3	7	04	3	21	23
23	7	6	4	6	10	4	21	16	5	6	34	5	21	51	6	6	57	6	21	42	7	6	03
30	14	6	7	19	56	8	3	22	8	16	23	8	29	04	9	11	28	9	23	40	10	5	42
Oct. 7	21	6	10	17	38	10	29	31	11	11	23	11	23	14	0	5	08	0	17	06	0	29	09
14	28	6	1	11	21	1	23	44	2	6	22	2	19	18	3	2	35	3	16	17	4	0	24
21	4	7	4	14	55	4	29	46	5	14	51	5	29	59	6	15	03	6	29	51	7	14	19
28	11	7	7	28	21	8	11	55	8	25	04	9	7	49	9	20	15	10	2	26	10	14	26
Nov. 4	18	7	10	26	19	11	8	10	11	20	01	0	1	56	0	13	56	0	26	03	1	8	20
11	25	7	1	20	47	2	3	25	2	16	17	2	29	24	3	12	46	3	26	26	4	10	23
18	2	8	4	24	37	5	9	06	5	23	45	6	8	30	6	23	14	7	7	50	7	22	11
25	9	8	8	6	12	8	19	50	9	3	04	9	15	54	9	28	25	10	10	38	10	22	39
Dec 2	16	8	11	4	32	11	16	22	11	28	14	0	10	11	0	22	18	1	4	35	1	17	08
9	23	8	1	29	55	2	12	56	2	26	12	3	9	40	3	23	20	4	7	11	4	21	10
16	1	9	5	5	16	5	19	27	6	3	42	6	17	59	7	2	14	7	16	23	8	0	23
23	8	9	8	14	10	8	27	38	9	10	50	9	23	40	10	6	12	10	18	27	11	0	29
30	15	9	11	12	23	11	24	12	0	6	03	0	18	01	1	0	11	1	12	36	1	25	20
Jan. 6	22	9	2	8	24	2	21	48	3	5	31	3	19	28	4	3	36	4	17	50	5	2	04

Ayanamsa on 1st Jan. : 23° 37′ 44″

Date	*Tithi* & *Mouth*	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	28 8	6 20 19	8 2 17	6 1 02	8 16 07	7 6 16	8R14 30	8 13 09
3	30 8	6 20 29	8 2 44	6 2 06	8 18 09	7 8 41	8 11 53	8 10 42
5	2 9	6 20 38	8 3 10	6 3 10	8 20 12	7 11 05	8 9 39	8 8 46
7	4 9	6 20 48	8 3 37	6 4 13	8 22 14	7 13 30	8 8 02	8 7 28
9	6 9	6 20 57	8 4 04	6 5 16	8 24 16	7 15 56	8 7 04	8 6 50
11	8 9	6 21 06	8 4 30	6 6 18	8 26 19	7 18 21	8D6 45	8 6 49
13	10 9	6 21 14	8 4 56	6 7 20	8 28 21	7 20 47	8 7 01	8 7 21
15	12 9	6 21 22	8 5 22	6 8 21	9 0 23	7 23 13	8 7 47	8 8 20
17	14 9	6 21 30	8 5 48	6 9 21	9 2 25	7 25 39	8 8 58	8 9 41
19	16 9	6 21 37	8 6 14	6 10 21	9 4 28	7 28 05	8 10 28	8 11 20
21	18 9	6 21 44	8 6 40	6 11 21	9 6 30	8 0 31	8 12 15	8 13 18
23	21 9	6 21 51	8 7 05	6 12 20	9 8 32	8 2 58	8 14 15	8 15 19
25	23 9	6 21 57	8 7 30	6 13 18	9 10 34	8 5 24	8 16 25	8 17 34
27	25 9	6 22 03	8 7 55	6 14 16	9 12 36	8 7 51	8 18 45	8 19 58
29	27 9	6 22 09	8 8 20	6 15 12	9 14 38	8 10 18	8 21 12	8 22 28
31	29 9	6 22 14	8 8 44	6 16 08	9 16 40	8 12 45	8 23 45	8 25 04
Feb. 2	1 10	6 22 19	8 9 09	6 17 04	9 18 42	8 15 13	8 26 24	8 27 46
4	2 10	6 22 23	8 9 32	6 17 58	9 20 43	8 17 40	8 28 08	9 0 31
6	4 10	6 22 27	8 9 56	6 18 52	9 22 45	8 20 07	9 1 56	9 3 21
8	6 10	6 22 31	8 10 19	6 19 45	9 24 47	8 22 35	9 4 48	9 6 15
10	8 10	6 22 34	8 10 42	6 20 36	9 26 48	8 25 02	9 7 44	9 9 13
12	10 10	6 22 37	8 11 05	6 21 27	9 28 50	8 27 30	9 10 43	9 12 14
14	12 10	6 22 39	8 11 27	6 22 17	10 0 51	8 29 58	9 13 46	9 15 19
16	14 10	6 22 41	8 11 48	6 23 06	10 2 52	9 2 25	9 16 52	9 18 27
18	17 10	6 22 43	8 12 11	6 23 54	10 4 53	9 4 53	9 20 02	9 21 39
20	19 10	6 22 44	8 12 32	6 24 40	10 6 54	9 7 21	9 23 16	9 24 54
22	21 10	6 22 45	8 12 53	6 25 26	10 8 55	9 9 49	9 26 33	9 28 13
24	23 10	6R22 45	8 13 14	6 26 10	10 10 56	9 12 17	9 29 54	10 1 36
26	25 10	6 22 45	8 13 34	6 26 53	10 12 57	9 14 45	10 3 19	10 5 03
28	27 10	6 22 45	8 13 53	6 27 34	10 14 57	9 17 13	10 6 48	10 8 34
Mar. 1	29 10	6 22 44	8 14 13	6 28 14	10 16 58	9 19 41	10 10 21	10 12 09
3	1 11	6 22 42	8 14 31	6 28 53	10 18 58	9 22 09	10 13 58	10 15 48
5	3 11	6 22 41	8 14 50	6 29 30	10 20 59	9 24 37	10 17 39	10 19 31
7	4 11	6 22 38	8 15 07	7 0 05	10 22 59	9 27 05	10 21 24	10 23 18
9	6 11	6 22 36	8 15 25	7 0 39	10 24 59	9 29 33	10 25 14	10 27 10
11	8 11	6 22 33	8 15 41	7 1 10	10 26 59	10 2 01	10 29 06	11 1 04
13	10 11	6 22 30	8 15 58	7 1 40	10 28 58	10 4 29	11 3 02	11 5 01
15	13 11	6 22 26	8 16 13	7 2 09	11 0 58	10 6 57	11 6 59	11 8 58
17	15 11	6 22 22	8 16 29	7 2 34	11 2 57	10 9 25	11 10 57	11 12 56
19	17 11	6 22 17	8 16 43	7 2 58	11 4 57	10 11 53	11 14 54	11 16 51
21	20 11	6 22 13	8 16 57	7 3 20	11 6 56	10 14 21	11 18 46	11 20 40
23	22 11	6 22 08	8 17 11	7 3 39	11 8 55	10 16 49	11 22 32	11 24 21
25	24 11	6 22 02	8 17 24	7 3 56	11 10 54	10 19 18	11 26 08	11 27 50
27	25 11	6 21 56	8 17 36	7 4 11	11 12 53	10 21 46	11 29 29	0 1 04
29	27 11	6 21 50	8 17 47	7 4 23	11 14 51	10 24 14	0 2 34	0 3 59
31	29 11	6 21 44	8 17 58	7 4 32	11 16 50	10 26 42	0 5 18	0 6 33
Apr. 2	1 12	6 21 37	8 18 09	7 4 39	11 18 48	10 29 10	0 7 41	0 8 43
4	5 12	6 21 30	8 18 18	7R 4 42	11 20 47	11 1 38	0 9 38	0 10 28
6	5 12	6 21 23	8 18 27	7 4 43	11 22 45	11 4 05	0 11 10	0 11 46
8	7 12	6 21 15	8 18 36	7 4 41	11 24 43	11 6 34	0 12 15	0 12 37
10	9 12	6 21 08	8 18 43	7 4 35	11 26 41	11 9 02	0 12 53	0R13 02
12	11 12	6 21 00	8 18 50	7 4 27	11 28 38	11 11 29	0 13 04	0 13 00
14	13 12	6 20 52	8 18 56	7 4 16	0 0 36	11 13 57	0 12 50	0 12 34
16	16 12	6 20 44	8 10 02	7 4 02	0 2 33	11 16 25	0 12 12	0 11 46

1984 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 37′ 44″

Date	Tithi & Month	श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
Nirayana Longitudes at 5-30 A.M. I.S.T.		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Apr. 16	16 12	6R20 44	8 19 02	7R4 02	0 2 33	11 16 25	0R12 12	0 11s46
18	18 12	6 20 35	8 19 07	7 3 44	0 4 31	11 18 53	0 11 16	0 10 42
20	20 12	6 20 27	8 19 11	7 3 24	0 6 28	11 21 21	0 10 05	0 9 26
22	22 12	6 20 18	8 19 14	7 3 01	0 8 25	11 23 48	0 8 45	0 8 04
24	24 12	6 20 09	8 19 17	7 2 35	0 10 22	11 26 16	0 7 22	0 6 42
26	26 12	6 20 00	8 19 18	7 2 06	0 12 19	11 28 44	0 6 02	0 5 25
28	28 12	6 19 51	8R19 19	7 1 34	0 14 15	0 1 12	0 4 51	0 4 20
30	29 12	6 19 42	8 19 20	7 1 00	0 16 12	0 3 39	0 3 53	0 3 30
May 2	1 1	6 19 33	8 19 19	7 0 24	0 18 08	0 6 07	0 3 11	0 2r56
4	3 1	6 19 24	8 19 18	6 29 46	0 20 05	0 8 35	0 2 46	0D2 41
6	5 1	6 19 15	8 19 16	6 29 06	0 22 01	0 11 02	0 2 41	0 2 45
8	7 1	6 19 06	8 19 13	6 28 24	0 23 57	0 13 30	0 2 54	0 3 07
10	10 1	6 18 57	8 19 10	6 27 42	0 25 53	0 15 57	0 3 26	0 3 48
12	12 1	6 18 48	8 19 06	6 26 59	0 27 49	0 18 25	0 4 15	0 4 46
14	14 1	6 18 39	8 19 01	6 26 16	0 29 45	0 20s52	0 5 21	0 6 00
16	16 1	6 18 30	8 18 55	6 25 32	1 1 41	0 23 20	0 6 43	0 7 29
18	18 1	6 18 22	8 18 49	6 24 49	1 3 36	0 25 47	0 8 19	0 9 12
20	20 1	6 18 13	8 18 42	6 24 07	1 5 32	0 28 15	0 10 09	0 11 09
22	22 1	6 18 05	8 18 34	6 23 26	1 7 27	1 0 42	0 12 12	0 13 17
24	24 1	6 17 57	8 18 26	6 22 46	1 9 22	1 3 09	0 14 26	0 15 38
26	26 1	6 17 49	8 18 17	6 22 08	1 11 18	1 5 37	0 16 52	0 18 10
28	28 1	6 17 41	8 18 07	6 21 32	1 13 13	1 8 04	0 19 29	0 20 52
30	30 2	6 17 33	8 17 57	6 20 58	1 15 08	1 10 32	0 22 17	0 23 45
June 1	2 2	6 17 26	8 17 46	6 20 27	1 17 03	1 12 59	0 25 15	0 26 48
3	4 2	6 17 19	8 17 34	6 19 58	1 18 58	1 15 27	0 28 24	1 0 02
5	6 2	6 17 12	8 17 22	6 19 33	1 20 53	1 17 54	1 1 43	1 3 26
7	8 2	6 17 05	8 17 10	6 19 10	1 22 48	1 20 21	1 5 11	1 6 59
9	11 2	6 16 59	8 16 57	6 18 51	1 24 42	1 22 49	1 8 50	1 10 43
11	13 2	6 16 53	8 16 44	6 18 35	1 26 37	1 25 16	1 12 38	1 14s36
13	15 2	6 16 47	8 16 30	6 18 22	1 28 32	1 27 43	1 16 35	1 18 37
15	17 2	6 16 42	8 16 16	6 18 13	2 0 26	2 0 11	1 20 41	1 22 47
17	19 2	6 16 37	8 16 02	6 18 07	2 2 21	2 2 38	1 24 54	1 27 02
19	21 2	6 16 32	8 15 47	6D18 04	2 4 15	2 5 06	1 29 12	2 1 23
21	23 2	6 16 28	8 15 32	6 18 04	2 6 10	2 7 33	2 3 34	2 5 45
23	24 2	6 16 24	8 15 17	6 18 08	2 8 04	2 10 00	2 7 57	2 10 08
25	26 2	6 16 20	8 15 02	6 18 15	2 9 59	2 12 28	2 12 19	2 14 29
27	28 2	6 16 17	8 14 47	6 18 [illegible]	2 11 53	2 14 55	2 16 38	2 18 46
29	30 2	6 16 14	8 14 32	6 18 38	2 13 48	2 17 23	2 20 53	2 22 58
July 1	3 3	6 16 11	8 14 16	6 18 53	2 15 42	2 19 50	2 25 02	2 27r04
3	5 3	6 16 09	8 14 01	6 19 12	2 17 37	2 22 18	2 29 04	3 1 02
5	7 3	6 16 07	8 13 45	6 19 34	2 19 31	2 24 45	3 2 58	3 4 53
7	9 3	6 16 06	8 13 30	6 19 58	2 21 25	2 27 13	3 6 45	3 8 36
9	11 3	6 16 05	8 13 15	6 20 25	2 23 20	2 29 41	3 10 24	3 12 11
11	13 3	6 16 04	8 13 00	6 20 55	2 25 14	3 2r08	3 13 55	3 15 38
13	15 3	6D16 04	8 12 46	6 21 27	2 27 09	3 4 56	3 17 18	3 18 57
15	17 3	6 16 04	8 12 32	6 22 01	2 29 03	3 7 03	3 20 34	3 22 08
17	19 3	6 16 04	8 12 18	6 22 37	3 0 57	3 9 31	3 23 41	3 25 11
19	21 3	6 16 05	8 12 04	6 23 16	3 2 52	3 11 58	3 26 40	3 28 06
21	23 3	6 16 07	8 11 51	6 23 57	3 4 46	3 14 26	3 29 31	4 0 53
23	25 3	6 16 08	8 11 38	6 24 39	3 6 41	3 16 54	4 2 14	4 3 32
25	27 3	6 16 11	8 11 25	6 25 24	3 8 36	3 19 21	4 4 48	4 6 01
27	29 3	6 16 13	8 11 14	6 26 11	3 10 30	3 21 49	4 7 12	4 8 21
29	1 4	6 16 16	8 11 02	6 26 59	3 12 25	3 24 17	4 9 28	4 10 31
31	3 4	6 16 19	8 10 51	6 27 49	3 14 20	3 26 44	4 11 33	4 12 31

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 37′ 44″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			बृ ♃ बृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			☿ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
July 31	3	4	6	16	19	8R	10	51	6	27	49	3	14	20	3	26	44	4	11	33	4	12	31
Aug. 2	6	4	6	16	23	8	10	41	6	28	41	3	16	15	3	29	12	4	13	26	4	14	19
4	8	4	6	16	27	8	10	32	5	29	34	3	18	09	4	1	40	4	15	08	4	15	53
6	10	4	6	16	31	8	10	23	7	0	29	3	20	04	4	4	07	4	16	36	4	17	14
8	12	4	6	16	36	8	10	14	7	1	25	3	21	59	4	6	35	4	17	49	4	18	19
10	14	4	6	16	41	8	10	07	7	2	23	3	23	54	4	9	03	4	18	46	4	19	07
12	16	4	6	16	46	8	10	00	7	3	22	3	25	49	4	11	30	4	19	24	4	19	37
14	18	4	6	16	52	8	9	53	7	4	23	3	27	45	4	13	58	4R	19	44	4	19	45
16	19	4	6	16	58	8	9	48	7	5	24	3	29	40	4	16	25	4	19s	41	4	19	32
18	21	4	6	17	05	8	9	43	7	6	27	4	1	35	4	18	53	4	19	17	4	18	56
20	23	4	6	17	12	8	9	39	7	7	31	4	3	31	4	21	21	4	18	30	4	17	58
22	25	4	6	17	19	8	9	35	7	8	36	4	5	26	4	23	48	4	17	22	4	16	40
24	27	4	6	17	26	8	9	33	7	9	43	4	7	22	4	26	16	4	15	54	4	15	04
26	30	4	6	17	34	8	9	31	7	10	50	4	9	18	4	28	43	4	14	12	4	13	17
28	2	5	6	17	42	8	9	30	7	11	58	4	11	14	5	1	11	4	12	22	4	11	27
30	4	5	6	17	51	8D	9	29	7	13	08	4	13	10	5	3	38	4	10	34	4	9	43
Sept. 1	6	5	6	18	00	8	9	30	7	14	18	4	15	06	5	6	06	4	8	55	4	8	13
3	9	5	6	18	09	8	9	31	7	15	29	4	17	02	5	8	33	4	7	36	4	7r	06
5	11	5	6	18	18	8	9	33	7	16	41	4	18	58	5	11	01	4	6	44	4	6	29
7	12	5	6	18	28	8	9	35	7	17	54	4	20	55	5	13	28	4D	6	24	4	6	27
9	14	5	6	18	38	8	9	39	7	19	08	4	22	51	5	15	55	4	6	38	4	6	59
11	16	5	6	18	48	8	9	43	7	20	23	4	24	48	5	18	23	4	7	29	4	8	07
13	18	5	6	18	58	8	9	48	7	21	38	4	26	44	5	20	50	4	8	54	4	9	49
15	20	5	6	19	09	8	9	53	7	22	54	4	28	41	5	23	17	4	10	51	4	12	00
17	22	5	6	19	20	8	10	00	7	24	11	5	0	38	5	25	44	4	13	15	4	14	36
19	24	5	6	19	31	8	10	07	7	25	29	5	2	35	5	28	11	4	16	02	4	17	33
21	26	5	6	19	42	8	10	15	7	26	47	5	4	32	6	0	38	4	19	07	4	20	45
23	28	5	6	19	54	8	10	23	7	28	08	5	6	30	6	3	05	4	22	26	4	24	09
25	30	5	6	20	06	8	10	32	7	29	25	5	8	26	6	5	32	4	25	54	4	27	40
27	3	6	6	20	18	8	10	42	8	0	45	5	10	25	6	7	59	4	29	27	5	1s	15
29	5	6	6	20	30	8	10	53	8	2	06	5	12	23	6	10	26	5	3	03	5	4	52
Oct. 1	7	6	6	20	42	8	11	04	8	3	27	5	14	21	6	12	53	5	6	41	5	8	29
3	9	6	6	20	55	8	11	16	8	4	49	5	16	19	6	15	20	5	10	18	5	12	06
5	11	6	6	21	08	8	11	28	8	6	11	5	18	17	6	17	46	5	13	53	5	15	40
7	13	6	6	21	20	8	11	41	8	7	34	5	20	16	6	20	13	5	17	26	5	19	12
9	15	6	6	21	33	8	11	55	8	8	57	5	22	14	6	22	39	5	20	57	5	22	41
11	16	6	6	21	47	8	12	09	8	10	21	5	24	13	6	25	06	5	24	24	5	26	07
13	18	6	6	22	00	8	12	24	8	11	45	5	26	11	6	27	32	5	27	49	5	29	31
15	20	6	6	22	14	8	12	39	8	13	10	5	28	10	6	29	59	6	1	11	6	2	51
17	22	6	6	22	27	8	12	55	8	14	35	6	0	09	7	2	25	6	4	31	6	6	09
19	24	6	6	22	41	8	13	12	8	16	01	6	2	08	7	4	51	6	7	47	6	9	24
21	26	6	6	22	55	8	13	29	8	17	26	6	4	08	7	7	17	6	11	01	6	12	37
23	29	6	6	23	09	8	13	47	8	18	53	6	6	07	7	9	43	6	14	13	6	15	48
25	1	7	6	23s	23	8	14	05	8	20	19	6	8	07	7	12	09	6	17	22	6	18	59
27	3	7	6	23	37	8	14	23	8	21	46	6	10	07	7	14	35	6	20	30	6	22	03
29	5	7	6	23	51	8	14	42	8	23	14	6	12	06	7	17	01	6	23	35	6	25	07
31	7	7	6	24	05	8	15	02	8	24	41	6	14	06	7	19	26	6	26	38	6	28	09
Nov. 2	9	7	6	24	19	8	15	22	8	26	09	6	16	06	7	21	52	6	29	40	7	1r	10
4	11	7	6	24	33	8	15	42	8	27	38	6	18	07	7	24	17	7	2	39	7	4	08
6	13	7	6	24	48	8	16	03	8	29	06	6	20	07	7	26	42	7	5	37	7	7	05
8	15	7	6	25	02	8	16	24	9	0	35	6	22	07	7	29	07	7	8	32	7	9	59
10	17	7	6	25	16	8	16	46	9	2	04	6	24	08	8	1	32	7	11	26	7	12	52
12	19	7	6	25	31	8	17	08	9	3	33	6	26	08	8	3	57	7	14	17	7	15	41
14	21	7	6	25	45	8	17	30	9	5	03	6	28	09	8	6	22	7	17	05	7	18	27

Longitudes of Planets

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	बृ ♃ बृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Nov14	21 7	6 25s45	8 17 30	9 5 03	6 28 09	8 6 22	7 17 05	7 18 27
16	23 7	6 26 00	8 17 55	9 6 33	7 0 10	8 8 46	7 19 49	7 21 10
18	25 7	6 26 14	8 18 16	9 8 02	7 2 11	8 11 11	7 22 29	7 23 48
20	27 7	6 26 28	8 18 40	9 9 32	7 4 12	8 13 35	7 25 04	7 26 19
22	29 7	6 26 42	8 19 03	9 11 03	7 6 13	8 15 59	7 27 32	7 28 43
24	2 8	6 26r57	8 19 28	9 12 33	7 8 15	8 18 22	7 29 51	8 0 56
26	4 8	6 27 11	8 19 52	9 14 04	7 10 16	8 20 46	8 1 58	8 2 56
28	6 8	6 27 25	8 20 17	9 15 35	7 12 18	8 23 09	8 3 50	8 4 39
30	8 8	6 27 39	8 20 42	9 17 06	7 14 19	8 25 32	8 5 23	8 6 00
Dec. 2	10 8	6 27 53	8 21 07	9 18 37	7 16 21	8 27 55	8 6 30	8 6 52
4	11 8	6 28 07	8 21 32	9 20 08	7 18 23	9 0 17	8R 7 06	8 7 10
6	13 8	6 28 20	8 21 58	9 21 39	7 20 24	9 2 39	8 7 04	8 6 47
8	15 8	6 28 34	8 22 24	9 23 10	7 22 26	9 5 01	8 6s18	8 5 39
10	17 8	6 28 48	8 22 50	9 24 42	7 24 28	9 7 22	8 4 48	8 3 47
12	19 8	6 29 01	8 23 16	9 26 13	7 26 30	9 9 43	8 2 37	8 1 20
14	21 8	6 29 14	8 23 43	9 27 45	7 28 32	9 12 03	7 29 59	7 28 36
16	23 8	6 29 27	8 24 10	9 29 16	8 0 34	9 14 23	7 27 14	7 25 56
18	26 8	6 29 40	8 24 37	10 0 48	8 2 36	9 16 43	7 24 43	7 23r39
20	28 8	6 29 53	8 25 04	10 2 19	8 4 39	9 19 02	7 22 45	7 22 01
22	30 8	7 0 05	8 25 31	10 3 51	8 6 41	9 21 20	7 21 28	7 21 06
24	2 9	7 0 18	8 25 58	10 5 23	8 8 43	9 23 38	7D20 54	7 20 52
26	4 9	7 0 30	8 26 26	10 6 55	8 10 45	9 25 55	7 21 00	7 21 16
28	6 9	7 0 42	8 26 53	10 8 26	8 12 48	9 28 12	7 21 40	7 22 11
30	8 9	7 0 54	8 27 21	10 9 58	8 14 50	10 0 28	7 22 49	7 23 32
Jan. 1	10 9	7 1 05	8 27 49	10 11 30	8 16 52	10 2 43	7 24 20	7 25 12

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	° ′ ″
January	1	1 22 10	1 20 54	7 17 31	8 5 43	6 8 10	23 37 44
February	1	1 20 41	1 19 15	7 19 00	8 6 47	6R 8 30	23 37 49
March	1	1 17 39	1 17 43	7R 19 48	8 7 30	6 8 19	23 37 53
April	1	1 14 26	1 16 05	7 19 51	8R 7 48	6 7 40	23 37 56
May	1	1 13 03	1 14 29	7 19 09	8 7 35	6 6 50	23 37 59
June	1	1 12 59	1 12 51	7 17 58	8 6 57	6 6 05	23 38 04
July	1	1 12 43	1 11 15	7 16 48	8 6 09	6D 5 42	23 38 10
August	1	1 10 54	1 9 36	7 16 01	8 5 25	6 5 50	23 38 15
September	1	1 7 41	1 7 58	7D 15 59	8D 5 02	6 6 28	23 38 19
October	1	1 4 56	1 6 23	7 16 42	8 5 08	6 7 28	23 38 22
November	1	1 3 51	1 4 44	7 18 07	8 5 44	6 8 42	23 38 26
December	1	1 3 54	1 3 09	7 19 52	8 6 41	6 9 51	23 38 31
January	1	1 3 10	1 1 30	7 21 43	8 7 51	6 10 43	23 38 36

Combustion or Heliacal Setting of Planets

Saturn	:	From Oct. 26 to Nov. 24.
Jupiter	:	— —
Mars	:	— —
Venus	:	From May 14 to July 10.
Mercury	:	Upto Jan. 5 then from Feb. 17 to Mar. 19, Apr. 15 to May 3, June 12 to July 2, Aug. 16 to Sept. 4, Sept. 28 to Nov. 3, Dec. 8 to Dec. 19.

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Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	*m*	s	°	′			*h*	*m*	s	°	′
Mercury	(83) Dec.	22,	6	09	8	23	02	Jan.	11,	6	24	8	6	45
	Apr.	11,	26	01	0	13	04	May.	5,	19	49	0	2	41
	Aug.	14,	24	58	4	18	45	Sept.	7,	9	27	4	6	24
	Dec.	4,	27	00	8	7	10	Dec.	24,	21	54	7	20	52
Venus	—		—		—			—		—		—		
Mars	Apr.	5,	17	49	7	4	48	June	19,	23	45	6	18	04
Jupiter	Apr.	29,	24	19	8	19	20	Aug.	29,	27	45	8	9	29
Saturn	Feb.	24,	19	51	6	22	45	July	13,	12	21	6	16	04
Uranus	Mar.	18,	13	29	7	19	56	Aug.	18,	12	41	7	15	54
Neptune	Apr.	2,	21	17	8	7	48	Sept.	9,	29	29	8	5	01
Pluto	Feb.	4,	8	29	6	8	31	July	9,	12	41	6	5	41

New-Moon and Full-Moon

New Moon				Lunar months begin		Full-Moon				Hindi Months begin	
	d	*h*	*m*				*d*	*h*	*m*		
Jan.	3	10	46	Pauṣa	Sukla	Jan.	18	19	35	Māgha	Vadi
Feb.	1	29	16	Māgha	"	Feb.	17	6	11	Phālguna	"
Mar.	2	24	01	Phalguna	"	Mar.	17	15	40	Chaitra	"
Apr.	1	17	40	Caitra	"	Apr.	15	24	41	Vaiśākha	"
May	1	9	15	Vaiṣākha	"	May	15	9	59	Jyaiṣṭha	"
May	30	22	18	Jyaiṣṭha	"	June	13	20	12	Āṣāḍha	"
June	29	8	48	Āṣāḍha	"	July	13	7	50	Śrāvaṇa	"
July	28	17	21	Śrāvana	"	Aug.	11	21	13	Bhādra	"
Aug.	26	24	55	Bhādra	"	Sept.	10	12	31	Āśvina	"
Sept.	25	8	41	Āśvina	"	Oct.	9	29	28	Kārtika	"
Oct.	24	17	38	Kārtika	"	Nov.	8	23	13	Agrahā	"
Nov.	22	28	27	Agrahā	"	Dec.	8	16	23	Pauṣa	"
Dec.	22	17	17	Pauṣā	"		—				

Sun's entry into Nirayana Signs

			d	*h*	*m*				*d*	*h*	*m*
Makara	on	Jan.	14	20	24	Karkaṭa	on	July	15	29	26
Kumbha	on	Feb.	13	9	21	Siṁha	on	Aug.	16	13	53
Mina	on	Mar.	14	6	15	Kanyā	on	Sept.	16	13	49
Meṣa	on	Apr.	13	14	49	Tulā	on	Oct.	16	25	45
Vṛṣa	on	May	14	11	47	Vṛścika	on	Nov.	15	25	30
Mithuna	on	June	14	18	29	Dhanus	on	Dec.	15	16	03

Saka era 1906-07, Saṁvat 2041-42 (Mar. 22, Nov. 13), B.S. 1391-92 (Apr. 14)
Kollam era 1160-61 (Aug. 17), 59 Krodhāna (Mar. 22 Apr. 14).

Date	Beng. Date		*Nirayana* Long. of Moon (च) ठ) at 5-30 A.M. I.S.T. Sunday			Monday			Tuesday			Wednes.			Thurs.			Friday			Satur.		
			s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'	s	°	'
Dec.30	15	9	11	12	23	11	24	12	0	6	03	0	18	01	1	0	11	1	12	36	1	25	20
Jan. 6	22	9	2	8	24	2	21	48	3	5	31	3	19	28	4	3	36	4	17	50	5	2	04
13	29	9	5	16	17	6	0	25	6	14	28	6	28	21	7	12	13	7	25	55	8	9	27
20	6	10	8	22	50	9	6	01	9	18	57	10	1	39	10	14	05	10	26	18	11	8	18
27	13	10	11	20	11	0	1	59	0	13	49	0	25	45	1	7	53	1	20	19	2	3	06
Feb. 3	20	10	2	16	19	2	29	57	3	14	00	3	28	22	4	12	59	4	27	41	5	12	21
10	27	10	5	26	53	6	11	13	6	25	18	7	9	08	7	22	44	8	6	06	8	19	17
17	5	11	9	2	17	9	15	05	9	27	43	10	10	09	10	22	25	11	4	30	11	16	26
24	12	11	11	28	16	0	10	03	0	21	51	1	3	46	1	15	51	1	28	14	2	10	58
Mar. 3	19	11	2	24	[illegible]	3	7	49	3	21	58	4	6	34	4	21	25	5	6	29	5	21	54
10	26	11	6	6	29	6	21	09	7	5	29	7	19	37	8	3	03	8	16	20	8	29	20
17	3	12	9	12	04	9	24	36	10	6	57	10	19	08	11	1	12	11	13	07	11	25	00
24	10	12	0	6	48	0	18	34	1	0	34	1	12	19	1	24	25	2	6	46	2	19	26
31	17	12	3	2	32	3	16	05	4	0	07	4	14	37	4	29	30	5	14	39	5	29	54
Apr. 7	24	12	6	15	05	7	0	02	7	14	39	7	28	52	8	12	39	8	26	01	9	9	00
14	1	1	9	21	39	10	4	03	10	16	14	10	28	15	11	10	10	11	22	00	0	3	48
21	8	1	0	15	36	0	27	26	1	9	20	1	21	22	2	3	34	2	15	59	2	28	42
28	15	1	3	11	45	3	25	11	4	9	02	4	23	19	5	7	59	5	22	56	6	8	04
May 5	22	1	6	23	14	7	8	16	7	23	02	8	7	25	8	21	23	9	4	04	9	17	59
12	29	1	10	0	41	10	13	03	10	25	11	11	7	08	11	18	58	0	0	45	0	12	33
19	5	2	0	24	24	1	6	21	1	18	25	2	0	39	2	13	04	2	25	43	3	8	34
26	12	2	3	21	43	4	5	09	4	18	55	5	2	59	5	17	21	6	1	58	6	16	47
June 2	19	2	7	1	40	7	16	31	8	1	11	8	15	34	8	29	35	9	13	10	9	26	20
9	26	2	10	9	06	10	21	31	11	3	39	11	15	35	11	27	25	0	9	12	0	21	02
16	1	3	1	2	58	1	15	03	1	27	20	2	9	50	2	22	33	3	5	31	3	18	42
23	8	3	4	2	06	4	15	42	4	29	30	5	13	29	5	27	39	6	11	58	6	26	23
30	15	3	7	10	53	7	25	21	8	9	42	8	23	51	9	7	43	9	21	14	10	4	29
July 7	22	3	10	17	08	10	29	34	11	11	43	11	23	40	0	5	30	0	17	16	0	29	10
14	29	3	1	11	11	1	23	24	2	5	52	2	18	38	3	1	42	3	15	02	3	28	38
21	5	4	4	12	24	4	26	21	5	10	21	5	24	26	6	8	33	6	22	41	7	6	49
28	12	4	7	20	56	8	4	59	8	18	55	9	2	42	9	16	15	9	29	31	10	12	30
Aug. 4	19	4	10	25	09	11	7	31	11	19	38	0	1	34	0	13	24	0	25	12	1	7	05
11	26	4	1	19	08	2	1	25	2	14	01	2	26	58	3	10	18	3	23	59	4	7	58
18	2	5	4	22	10	5	6	31	5	20	54	6	5	15	6	19	30	7	3	39	7	17	40
25	9	5	8	1	32	8	15	14	8	28	47	9	12	10	9	25	20	10	8	16	10	20	58
Sept. 1	16	5	11	3	25	11	15	39	11	27	41	0	9	34	0	21	22	1	3	10	1	15	02
8	23	5	1	27	04	2	9	22	2	21	59	3	4	59	3	18	26	4	2	18	4	16	33
15	30	5	5	1	06	5	15	50	6	0	38	6	15	22	6	29	56	7	14	17	7	28	22
22	6	6	8	12	10	8	25	42	9	8	59	9	22	02	10	4	51	10	17	27	10	29	51
29	13	6	11	12	04	11	24	08	0	6	04	0	17	53	0	29	40	1	11	27	1	23	19
Oct. 6	20	6	2	5	21	2	17	36	3	0	10	3	13	07	3	26	30	4	10	20	4	24	38
13	27	6	5	9	18	5	24	16	6	9	22	6	24	27	7	9	23	7	24	03	8	8	22
20	3	7	8	22	17	9	5	50	9	19	01	10	1	53	10	14	28	10	26	49	11	8	58
27	10	7	11	20	59	0	2	54	0	14	44	0	26	31	1	8	19	1	20	09	2	2	05
Nov. 3	17	7	2	14	09	2	26	25	3	8	57	3	21	48	4	5	03	4	18	43	5	[illegible]	50
10	24	7	5	17	22	6	8	16	6	17	23	7	2	37	7	17	47	8	2	44	8	17	19
17	1	8	9	1	29	9	15	11	9	28	26	10	11	16	10	23	46	11	5	59	11	18	00
24	8	8	11	29	53	0	11	42	0	23	29	1	5	17	1	17	10	1	29	07	2	11	12
Dec. 1	15	8	2	23	25	3	5	50	3	18	27	4	1	19	4	14	29	4	27	59	5	11	51
8	22	8	5	26	05	6	10	40	6	25	33	7	10	37	7	25	43	8	10	42	8	25	25
15	29	8	9	9	44	9	23	36	10	6	59	10	19	55	11	2	26	11	14	39	11	26	38
22	7	9	0	8	28	0	20	15	1	2	02	1	13	53	1	25	52	2	8	00	2	20	19
29	14	9	3	2	48	3	15	29	3	28	21	4	11	25	4	24	41	5	8	11	5	21	55
Jan. 5	21	9	6	5	55	6	20	10	7	4	39	7	19	19	8	4	04	8	18	47	9	3	20

Longitudes of Planets

Ayanamsa on 1st Jan. : 23° 38′ 36″

Date	*Tithi* & *Month*	Nirayana Longitudes at 5-30 A.M. I.S.T. श ♄ नि	बृ ♃ ह	मं ♂ ग	र ☉ वि	शु ♀ क्र	बु ☿ ध	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Jan. 1	10 9	7 1 05	8 27 49	10 11 30	8 16 52	10 2 43	7 24 20	7 25 12
3	11 9	7 1 16	8 28s17	10 13 01	8 18 55	10 4 57	7 26 03	7 27 09
5	13 9	7 1 28	8 28 45	10 14 33	8 20 57	10 7 10	7 28 12	7 29 19
7	15 9	7 1 38	8 29 13	10 16 05	8 22 59	10 9 22	8 0 27	8 1 38
9	18 9	7 1 49	8 29 41	10 17 36	8 25 01	10 11 34	8 2 51	8 4 05
11	20 9	7 1 59	9 0 09	10 19 08	8 27 04	10 13 44	8 5 22	8 6 40
13	22 9	7 2 09	9 0 37	10 20 39	8 29 06	10 15 53	8 7 59	8 9 19
15	24 9	7 2 19	9 1☌05	10 22 10	9 1 08	10 18 01	8 10 40	8 12 03
17	26 9	7 2 28	9 1 33	10 23 42	9 3 10	10 20 08	8 13 26	8 14 51
19	28 9	7 2 37	9 2 01	10 25 13	9 5 13	10 22 13	8 16 16	8 17 42
21	30 9	7 2 46	9 2 29	10 26 44	9 7 15	10 24 17	8 19 09	8 20 37
23	2 10	7 2 55	9 2 57	10 28 15	9 9 17	10 26 19	8 22 05	8 23 34
25	4 10	7 3 03	9 3 25	10 29 45	9 11 19	10 28 19	8 25 04	8 26 34
27	6 10	7 3 11	9 3 53	11 1 17	9 13 21	11 0 18	8 28 05	8 29 37
29	8 10	7 3 18	9 4r21	11 2 47	9 15 23	11 2 15	9 1 09	9 2s42
31	10 10	7 3 25	9 4 49	11 4 18	9 17 25	11 4 09	9 4 16	9 5 51
Feb. 2	12 10	7 3 32	9 5 17	11 5 49	9 19 27	11 6 02	9 7 26	9 9 02
4	14 10	7 3 39	9 5 45	11 7 19	9 21 28	11 7 51	9 10 38	9 12 16
6	16 10	7 3 45	9 6 12	11 8 49	9 23 30	11 9 39	9 13 54	9 15 32
8	18 10	7 3 50	9 6 40	11 10 19	9 25 31	11 11 23	9 17 12	9 18 53
10	20 10	7 3 56	9 7 07	11 11 49	9 27 33	11 13 01	9 20 34	9 22 16
12	23 10	7 4 01	9 7 34	11 13 19	9 29 34	11 14 42	9 23 59	9 25 42
14	25 10	7 4 05	9 8 01	11 14 49	10 1 36	11 16 16	9 27 27	9 29 12
16	27 10	7 4 09	9 8 28	11 16 18	10 3 37	11 17 47	10 0 59	10 2 46
18	29 10	7 4 13	9 8 55	11 17 48	10 5 38	11 19 13	10 4 34	10 6☌23
20	1 11	7 4 16	9 9 22	11 19 17	10 7 39	11 20 35	10 8 12	10 10 03
22	3 11	7 4 19	9 9 48	11 20 46	10 9 40	11 21 53	10 11 54	10 13 46
24	4 11	7 4 22	9 10 14	11 22 15	10 11 41	11 23 04	10 15 39	10 17 32
26	6 11	7 4 24	9 10 40	11 23 44	10 13 42	11 24 10	10 19 26	10 21 20
28	8 11	7 4 26	9 11 06	11 25 13	10 15 42	11 25 11	10 23 14	10 25 09
Mar. 2	10 11	7 4 27	9 11 31	11 26 41	10 17 43	11 26 04	10 27r03	10 28 56
4	12 11	7 4 28	9 11 57	11 28 09	10 19 43	11 26 51	11 0 49	11 2 41
6	14 11	7R 4 29	9 12 22	11 29 38	10 21 43	11 27 29	11 4 33	11 6 21
8	17 11	7 4 29	9 12 46	0 1 05	10 23 43	11 28 00	11 8 07	11 9 51
10	19 11	7 4 28	9 13 11	0 2 33	10 25 43	11 28 22	11 11 31	11 13 08
12	21 11	7 4 28	9 13 35	0 4 01	10 27 43	11R28 35	11 14 41	11 16 08
14	23 11	7 4 27	9 13 59	0 5 28	10 29 42	11 28 39	11 17 31	11 18 47
16	25 11	7 4 25	9 14 22	0 6 56	11 1 42	11 28 33	11 19 58	11 21 02
18	27 11	7 4 23	9 14 46	0 8 23	11 3 42	11 28 17	11 21 59	11 22 48
20	29 11	7 4 21	9 15 08	0 9 50	11 5 41	11 27 51	11 23 30	11 24 04
22	1 12	7 4 18	9 15 31	0 11 16	11 7 40	11 27 16	11 24 30	11 24 48
24	3 12	7 4 15	9 15 53	0 12 43	11 9 39	11 26 31	11R24 58	11 25 01
26	5 12	7 4 12	9 16 15	0 14 09	11 11 38	11 25 37	11 24 55	11 24s42
28	6 12	7 4 08	9 16 36	0 15 35	11 13 37	11 24 36	11 24 23	11 23 57
30	8 12	7 4 04	9 16 57	0 17 01	11 15 35	11 23s28	11 23 25	11 22 48
Apr. 1	10 12	7 3 59	9 17 18	0 18 27	11 17 34	11 22 16	11 22 07	11 21 22
3	13 12	7 3 54	9 17 38	0 19 53	11 19 32	11 21☌01	11 20☌35	11 19 47
5	15 12	7 3 49	9 17 57	0 21 18	11 21 30	11 19r45	11 18 58	11 18 10
7	17 12	7 3 43	9 18 17	0 22 44	11 23 28	11 18 31	11 17 23	11 16 39
9	20 12	7 3 38	9 18 35	0 24 09	11 25 26	11 17 20	11 15 57	11 15 19
11	22 12	7 3 31	9 18 54	0 25 34	11 27 24	11 16 13	11 14 45	11 14 16
13	24 12	7 3 25	9 19 11	0 26 58	11 29 22	11 15 14	11 13r51	11 13 32
15	26 12	7 3 18	9 19 29	0 28 23	0 1 19	11 14 22	11 13 18	11 13 08
17	28 12	7 3 11	9 19 45	0 29 47	0 3 17	11 13 38	11D13 05	11 13 09

1985 A.D. Longitudes of Planets CONDENSED

Ayanamsa on 1st Jan. : 23° 38′ 36″.

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	Tithi & Month		श ♄ श			वृ ♃ वृ			म ♂ म			र ☉ र			शु ♀ शु			बु ☿ बु			♀ 2nd day		
			s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
Apr. 17	28	12	7R	3	11	9	19	45	0	29	47	0	3	17	11R	13	38	11D	13	05	11	13	06
19	29	12	7	3	04	9	20	02	1	1	12	0	5	14	11	13	05	11	13	13	11	13	24
21	1	1	7	2	56	9	20	17	1	2	36	0	7	11	11	12	40	11	13	40	11	14	01
23	3	1	7	2	49	9	20	32	1	4	00	0	9	08	11	12	26	11	14	27	11	14	56
25	5	1	7	2	41	9	20	47	1	5	23	0	11	05	11D	12	21	11	15	30	11	16	03
27	7	1	7	2	33	9	21	01	1	6	47	0	13	02	11	12	26	11	16	50	11	17	35
29	9	1	7	2	24	9	21	14	1	8	10	0	14	59	11	12	40	11	18	24	11	19	16
May 1	11	1	7	2	16	9	21	27	1	9	33	0	16	55	11	13	02	11	20	11	11	21	03
3	13	1	7	2	07	9	21	39	1	10	56	0	18	52	11	13	32	11	22	10	11	23	14
5	16	1	7	1	59	9	21	50	1	12	19	0	20	48	11	14	10	11	24	21	11	25	30
7	18	1	7	1	50	9	22	01	1	13	42	0	22	44	11	14	56	11	26	42	11	27	57
9	20	1	7	1	41	9	22	11	1	15	04	0	24	40	11	15	48	11	29	14	0	0	33
11	22	1	7	1	32	9	22	21	1	16	27	0	26	36	11	16	47	0	1	55	0	3	18
13	24	1	7	1	23	9	22	30	1	17	49	0	28	32	11	17	51	0	4	45	0	6	13
15	26	1	7	1⊙	14	9	22	38	1	19	11	1	0	28	11	19	01	0	7	43	0	9	16
17	28	1	7	1	05	9	22	45	1	20	33	1	2	23	11	20	15	0	10	51	0	12	28
19	30	1	7	0	56	9	22	52	1	21	54	1	4	19	11	21	34	0	14	07	0	15	49
21	2	2	7	0	47	9	22	58	1	23	16	1	6	15	11	22	58	0	17	32	0	19	18
23	3	2	7	0	38	9	23	03	1	24	37	1	8	10	11	24	25	0	21	06	0	22	56
25	5	2	7	0	30	9	23	08	1	25	59	1	10	05	11	25	55	0	24	48	0	26	42
27	7	2	7	0	21	9	23	11	1	27	20	1	12	01	11	27	29	0	28	38	1	0	37
29	10	2	7	0	12	9	23	14	1	28	41	1	13	56	11	29	06	1	2	37	1	4	39
31	12	2	7	0	04	9	23	17	2	0	01	1	15	51	0	0	46	1	6	43	1	8	49
June 2	14	2	6	29	55	9	23	18	2	1	22	1	17	46	0	2	29	1	10	56	1	13	05
4	16	2	6	29	47	9R	23	19	2	2	43	1	19	41	0	4	14	1	15	14	1	17	25
6	19	2	6	29	39	9	23	19	2	4	03	1	21	35	0	6	01	1	19	57	1	21⊙	49
8	21	2	6	29	31	9	23	18	2	5	23	1	23	30	0	7	50	1	24	01	1	26	13
10	23	2	6	29	23	9	23	16	2	6	43	1	25	25	0	9	42	1	28	24	2	0	35
12	25	2	6	29	16	9	23	14	2	8	03	1	27	20	0	11	35	2	2	46	2	4	55
14	26	2	6	29	09	9	23	11	2	9	23	1	29	14	0	13	30	2	7	02	2	9	09
16	28	2	6	29	02	9	23	07	2	10	43	2	1	09	0	15	26	2	11	13	2	13	16
18	30	2	6	28	55	9	23	02	2	12	02	2	3	03	0	17	24	2	15	17	2	17	16
20	2	3	6	28	49	9	22	57	2	13	22	2	4	58	0	19	24	2	19	12	2	21	07
22	4	3	6	28	42	9	22	51	2	14	41	2	6	53	0	21	24	2	22	59	2	24	50
24	6	3	6	28	36	9	22	44	2	16	00	2	8	47	0	23	26	2	26	38	2	28	23
26	8	3	6	28	31	9	22	37	2	17	19	2	10	42	0	25	29	3	0	07	3	1	48
28	10	3	6	28	26	9	22	29	2	18	58	2	12	36	0	27	33	3	3	27	3	5	04
30	13	3	6	28	21	9	22	20	2	19	57	2	14	30	0	29	38	3	6	38	3	8	10
July 2	15	3	6	28	16	9	22	10	2	21	16	2	16	25	1	1	44	3	9	40	3	11	07
4	17	3	6	28	12	9	22	00	2	22	35	2	18	19	1	3	51	3	12	32	3	13	55
6	19	3	6	28	08	9	21	49	2	23	53	2	20	13	1	5	59	3	15	15	3	16	33
8	21	3	6	28	04	9	21	38	2	25	11	2	22	08	1	8	08	3	17	48	3	19	01
10	23	3	6	28	01	9	21	26	2	26	30	2	24	02	1	10	18	3	20	11	3	21	19
12	25	3	6	27	58	9	21	14	2	27	48	2	25	57	1	12	28	3	22	23	3	23	25
14	27	3	6	27	56	9	21	01	2	29	06	2	27	51	1	14	39	3	24	24	3	25	19
16	29	3	6	27	54	9	20	48	3	0	24	2	29	46	1	16	51	3	26	12	3	27	01
18	1	4	6	27	52	9	20	34	3	1⊙	42	3	1	40	1	19	03	3	27	47	3	28	29
20	3	4	6	27	51	9	20	20	3	3	00	3	3	35	1	21	16	3	29	07	3	29	41
22	5	4	6	27	50	9	20	06	3	4	18	3	5	29	1	23	30	4	0	12	4	0	38
24	7	4	6	27	49	9	19	51	3	5	35	3	7	24	1	25	44	4	1	00	4	1	17
26	9	4	6D	27	49	9	19	36	3	6	53	3	9	19	1	27	59	4	1	29	4	1	37
28	11	4	6	27	49	9	19	21	3	8	11	3	11	13	2	0	14	4R	1	40	4	1s	37
30	13	4	6	27	50	9	19	05	3	9	28	3	13	08	2	2	30	4	1	30	4	1	17
Aug. 1	16	4	6	27	51	9	18	50	3	10	45	3	15	03	2	4	46	4	1	00	4	0	37

EPHEMERIS Longitudes of Planets 1985 A.D.

Ayanamsa on 1st Jan. : 23° 38′ 36″

Date	Tithi & Month	*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
		श ♄ श	वृ ♃ वृ	म ♂ म	र ☉ र	शु ♀ शु	बु ☿ बु	☿ 2nd day
		s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
Aug. 1	16 4	6 27 51	9 R18 50	3 10s45	3 15 03	2 4 46	4 R1 00	4 0s37
3	18 4	6 27 52	9 18 34	3 12 03	3 16 57	2 7 03	4 0 10	3 29 38
5	20 4	6 27 54	9 18 19	3 13 20	3 18 52	2 9 20	3 29 01	3 28 21
7	21 4	6 27 56	9 18 03	3 14 37	3 20 47	2 11 38	3 27 38	3 26 53
9	23 4	6 27 59	9 17 48	3 15 54	3 22 42	2 13 56	3 26 06	3 25☌17
11	25 4	6 28 01	9 17 32	3 17 11	3 24 37	2 16 15	3 24 29	3 23 42
13	27 4	6 28 05	9 17 17	3 18 28	3 26 32	2 18 34	3 22 56	3 22 13
15	29 4	6 28 09	9 17 02	3 19 45	3 28 28	2 20 54	3 21 34	3 20 59
17	1 4	6 28 13	9 16 47	3 21 01	4 0 23	2 23 14	3 20 29	3 20r05
19	3 4	6 28 17	9 16 32	3 22 15	4 2 19	2 25 34	3 19 48	3 D19 37
21	6 4	6 28 22	9 16 18	3 23 35	4 4 14	2 27 55	3 19 34	3 19 38
23	8 4	6 28 27	9 16 04	3 24 51	4 6 10	3 0 16	3 19 50	3 20 09
25	10 4	6 28 33	9 15 50	3 26 08	4 8 05	3 2 37	3 20 37	3 21 12
27	12 4	6 28 38	9 15 37	3 27 24	4 10 01	3 4 59	3 21 55	3 22 45
29	14 4	6 28 45	9 15 25	3 28 41	4 11 57	3 7 21	3 23 43	3 24 47
31	16 4	6 28 51	9 15 13	3 29r57	4 13 53	3 9 44	3 25 58	3 27 15
Sept. 2	18 4	6 28 58	9 15 01	4 1 13	4 15 49	3 12 06	3 28 38	4 0 06
4	20 4	6 29 05	9 14 50	4 2 30	4 17 45	3 14 29	4 1 39	4 3 16
6	22 4	6 29 13	9 14 40	4 3 46	4 19 42	3 16 53	4 4 56	4 6 40
8	23 4	6 29 21	9 14 30	4 5 02	4 21 38	3 19 17	4 8 26	4 10 15
10	25 4	6 29 29	9 14 21	4 6 18	4 23 35	3 21 41	4 12 05	4 13 57
12	27 4	6 29 38	9 14 12	4 7 34	4 25 31	3 24 05	4 15 49	4 17 42
14	30 4	6 29 46	9 14 04	4 8 50	4 27 28	3 26 30	4 19 36	4 21 30
16	2 5	6 29 55	9 13 57	4 10 07	4 29 25	3 28 55	4 23 24	4 25 17
18	4 5	7 0 05	9 13 51	4 11 23	5 1 22	4 1 21	4 27 10	4 29 02
20	6 5	7 0 14	9 13 45	4 12 38	5 3 20	4 3 46	5 0 54	5 2 45
22	9 5	7 0 24	9 13 41	4 13 54	5 5 17	4 6 12	5 4☌35	5 6 24
24	11 5	7 0 35	9 13 37	4 15 10	5 7 14	4 8 38	5 8 13	5 10 00
26	13 5	7 0 45	9 13 33	4 16 26	5 9 12	4 11 04	5 11 47	5 13 32
28	15 5	7 0 56	9 13 31	4 17 42	5 11 09	4 13 31	5 15 17	5 17 01
30	16 5	7 1 07	9 13 29	4 18 57	5 13 07	4 15 58	5 18 44	5 20 26
Oct. 2	18 5	7 1 18	9 13 28	4 20 13	5 15 05	4 18 25	5 22 07	5 23 47
4	20 5	7 1 29	9 13 28	4 21 29	5 17 03	4 20 52	5 25 27	5 27 05
6	22 5	7 1 41	9 13 29	4 22 44	5 19 02	4 23 20	5 28 43	6 0 20
8	24 5	7 1 53	9 13 30	4 24 00	5 21 00	4 25 47	6 1 57	6 3 32
10	26 5	7 2 05	9 13 32	4 25 16	5 22 58	4 28 15	6 5 07	6 6 41
12	28 5	7 2 17	9 13 35	4 26 31	5 24 57	5 0 43	6 8 14	6 9 47
14	30 5	7 2 29	9 13 39	4 27 47	5 26 56	5 3 12	6 11r19	6 12 50
16	3 6	7 2 42	9 13 44	4 29 02	5 28 55	5 5 40	6 14 20	6 15 50
18	5 6	7 2 55	9 13 49	5 0 18	6 0 54	5 8 08	6 17 19	6 18 48
20	7 6	7 3 07	9 13 55	5 1 33	6 2 53	5 10 38	6 20 15	6 21 42
22	9 6	7 3 20	9 14 02	5 2 48	6 4 53	5 13 07	6 23 09	6 24 34
24	11 6	7 3 34	9 14 10	5 4 04	6 6 52	5 15 36	6 25 59	6 27 23
26	13 6	7 3 47	9 14 18	5 5 19	6 8 52	5 18 05	6 28 46	7 0 08
28	15 6	7 4 00	9 14 27	5 6 34	6 10 51	5 20 34	7 1 30	7 2 50
30	17 6	7 4 14	9 14 37	5 7 50	6 12 51	5 23 04	7 4 09	7 5 27
Nov. 1	18 6	7 4 28	9 14 47	5 9 05	6 14 51	5 25 34	7 6 44	7 7 59
3	20 6	7 4 41	9 14 59	5 10 20	6 16 51	5 28 03	7 9 13	7 10 25
5	22 6	7 4 55	9 15 11	5 11 35	6 18 51	6 0 33	7 11 35	7 12 43
7	24 6	7 5s09	9 15 23	5 12 30	6 20 52	6 3 03	7 13 48	7 14 51
9	26 6	7 5 23	9 15 36	5 14 05	6 22 52	6 5 33	7 15 51	7 16 48
11	29 6	7 5 37	9 15 50	5 15 20	6 24 53	6 8 03	7 17 40	7 18 29
13	1 7	7 5 52	9 16 05	5 16 35	6 26 54	6 10 34	7 19 13	7 19 51
15	3 7	7 6 06	9 16 20	5 17 50	6 28 55	6 13 04	7 20 24	7 20 50

Date	Tithi & Month		*Nirayana* Longitudes at 5-30 A.M. I.S.T.						
			शा ♄ श	बृ ♃ गु	म ♂ मं	र ☉ सू	शु ♀ शु	बु ☿ बु	☿ 2nd dav
			s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
Nov 15	3	7	7 6 06	9 16 20	5 17 50	6 28 55	6 13 04	7 20 24	7 20 50
17	6	7	7 6 20	9 16 35	5 19 05	7 0 56	6 15 35	7 21 08	7R 21 19
19	8	7	7 6 34	9 16 52	5 20 20	7 2 57	6 18 05	7 21 20	7 21 12
21	10	7	7 6 48	9 17 03	5 21 35	7 4 58	6 20 36	7 20 54	7 20 26
23	11	7	7 7 03	9 17 26	5 22 50	7 6 59	6 23 06	7 19 46	7 18 57
25	13	7	7 7 17	9 17 44	5 24 04	7 9 00	6 25 37	7 17 57	7 16 49
27	15	7	7 7 31	9 18 02	5 25 19	7 11 02	6 28 07	7 15 33	7 14 13
29	17	7	7 7 46	9 18 21	5 26 33	7 13 03	7 0 38	7 12 51	7 11 29
Dec. 1	19	7	7 8 00	9 18 41	5 27 48	7 15 05	7 3 09	7 10 10	7 8 57
3	21	7	7 8 14	9 19 00	5 29 02	7 17 06	7 5 40	7 7r 53	7 6 57
5	23	7	7 8 28	9 19 21	6 0 17	7 19 03	7 8 11	7 6 13	7 5 40
7	25	7	7 8 42	9 19 42	6 1 31	7 21 10	7 10 41	7 5 18	7D 5 08
9	27	7	7 8 56	9 20 03	6 2 46	7 23 12	7 13 12	7 5 08	7 5 18
11	29	7	7 9 10	9 20 25	6 4 00	7 25 14	7 15 43	7 5 37	7 6 05
13	2	8	7 9 24	9 20 47	6 5 14	7 27 16	7 18 14	7 6 40	7 7 22
15	4	8	7 9 38	9 21 10	6 6 28	7 29 18	7 20 45	7 8 10	7 9 03
17	6	8	7 9 52	9 21 33	6 7 42	8 1 20	7 23 16	7 10 00	7 11 02
19	8	8	7 10 05	9 21 56	6 8 56	8 3 22	7 25 47	7 12 07	7 13 15
21	10	8	7 10 19	9 22 20	6 10 10	8 5 24	7 28 18	7 14 26	7 15 39
23	12	8	7 10 32	9 22 44	6 11 24	8 7 26	8 0 49	7 16 54	7 18 11
25	13	8	7 10 45	9 23 08	6 12 38	8 9 29	8 3 20	7 19 30	7 20 50
27	15	8	7 10 58	9 23 33	6 13 51	8 11 31	8 5 51	7 22 12	7 23 34
29	17	8	7 11 11	9 23 58	6 15 05	8 13 33	8 8 22	7 24 58	7 26 22
31	19	8	7 11 24	9 24 23	6 16 18	8 15 35	8 10 53	7 27 47	7 29 13
Jan. 2	21	8	7 11 36	9 24 49	6 17 31	8 17 38	8 13 24	8 0 40	8 2 07

Longitudes of Rahu, Uranus, Neptune and Pluto

Date		True ☊	Mean ☊	♅	♆	♇	Ayanam
		s ° '	s ° '	s ° '	s ° '	s ° '	° ' "
January	1	1 3 10	1 1 30	7 21 43	8 7 51	6 10 43	23 38 36
February	1	1 0 28	0 29 53	7 23 16	8 8 55	6R 11 06	23 38 43
March	1	0 27 22	0 28 23	7 24 08	8 9 33	6 10 57	23 38 47
April	1	0 25 10	0 26 44	7R 24 18	8R 9 58	6 10 20	23 38 50
May	1	0 24 33	0 25 09	7 23 43	8 9 47	6 9 30	23 38 54
June	1	0 24 28	0 23 30	7 22 35	8 9 11	6 8 44	23 38 59
July	1	0 23 26	0 21 55	7 21 23	8 8 24	6D 8 19	23 39 04
August	1	0 20 37	0 20 16	7 20 31	8 7 39	6 8 23	23 39 10
September	1	0 17 21	0 18 38	7D 20 21	8D 7 14	6 8 59	23 39 14
October	1	0 15 42	0 17 02	7 20 57	8 7 17	6 9 57	23 39 17
November	1	0 15 31	0 15 24	7 22 16	8 7 51	6 11 11	23 39 21
December	1	0 15 10	0 13 48	7 23 58	8 8 47	6 12 20	23 39 26
January	1	0 13 09	0 12 10	7 25 50	8 9 56	6 13 15	23 39 32

Combustion or Heliacal Setting of Planets

Saturn :	From Nov. 7 to Dec. 6.
Jupiter :	From Jan. 3 to Jan. 28.
Mars :	From May 28 to Aug. 31.
Venus :	From Mar. 31 to Apr. 4, Dec. 23 to Feb. 13 ('86).
Mercury :	From Jan. 30 to Mar. 2, Mar. 27 to Apr. 13, May 26 to June 16, July 29 to Aug. 18, Sept. 11 to Oct. 14, Nov. 22 to Dec, 3.

Retrogression of Planets

PLANET	RETROGRADE							DIRECT						
	Date				Long.			Date				Long.		
			h	m	s	°	′			h	m	s	°	′
Mercury	Mar.	24,	24	37	11	25	01	Apr.	17,	10	56	11	13	05
	July	28,	6	19	4	1	40	Aug.	20,	28	10	3	19	24
	Nov.	18,	21	28	7	21	20	Dec.	8,	16	58	7	5	08
Venus	Mar.	13,	23	45	11	28	39	Apr.	25,	5	42	11	18	21
Mars	—		—		—			—		—		—		
Jupiter	June	4,	27	53	9	23	39	Oct.	3,	13	46	9	13	28
Saturn	Mar.	7,	18	09	7	4	29	July	25,	25	03	6	27	49
Uranus	Mar.	22,	27	35	7	24	20	Aug.	23,	5	50	7	20	19
Neptune	Apr.	5,	7	06	8	9	58	Sept.	12,	14	45	8	7	12
Pluto	Feb.	5,	29	28	6	11	06	July	12,	14	11	6	8	16

New-Moon and Full-Moon

New Moon				Lunar months begin		Full-Moon				Hindi Months begin	
	d	h	m				d	h	m		
						Jan.	7	7	47	Māgha	Vadi
Jan.	21	7	58	Māgha	Sukla	Feb.	5	20	29	Phālguna	,,
Feb.	19	24	13	Phalguna	,,	Mar.	7	7	43	Chaitra	,,
Mar.	21	17	29	Caitra	,,	Apr.	5	17	02	Vaiśākha	,,
Apr.	20	10	52	Vaiṣākha	,,	May	4	25	23	Jyaiṣṭha	,,
May	13	27	11	Jyaiṣṭha	,,	June	3	9	20	Āṣāḍha	,,
June	18	17	28	Āṣāḍha	,,	July	2	17	38	Śrāvaṇa	,,
July	17	29	26	Śravana(*Mala*)	,,	July	31	27	11	Śrāvaṇa (*Adhika*)	,,
Aug.	16	15	36	Śrāvana	,,	Aug.	30	14	57	Bhādra	,,
Sept.	14	24	50	Bhādra	,,	Sept.	29	5	38	Āśvina	,,
Oct.	14	10	03	Āśvina	,,	Oct.	28	23	08	Kārtika	,,
Nov.	12	19	50	Kārtika	,,	Nov.	27	18	12	Agrahā	,,
Dec.	12	6	24	Agrahā	,,	Dec.	27	13	00	Pauṣa	,,

Sun's entry into Nirayana Signs

			d	h	m				d	h	m
Makara	on	Jan.	13	26	43	Karkaṭa	on	July	16	11	33
Kumbha	on	Feb.	12	15	39	Siṁha	on	Aug.	16	19	54
Mina	on	Mar.	14	12	32	Kanyā	on	Sept.	16	19	47
Meṣa	on	Apr.	13	21	05	Tulā	on	Oct.	17	7	42
Vṛṣa	on	May	14	18	01	Vṛścika	on	Nov.	16	7	29
Mithuna	on	June	14	24	40	Dhanus	on	Dec.	15	22	07

SIDEREAL TIME

Table I

Sidereal Time at 12*h* noon local mean time for days of year.

(For 82½° E. Longitude and for 1900 A.D.)

Date	Sid. Time		
	JAN.		
	h	*m*	*s*
1	18	41	48
2	18	45	45
3	18	49	42
4	18	53	38
5	18	57	35
6	19	1	31
7	19	5	28
8	19	9	24
9	19	13	21
10	19	17	18
11	19	21	14
12	19	25	11
13	19	29	7
14	19	33	4
15	19	37	0
16	19	40	57
17	19	44	53
18	19	48	50
19	19	52	47
20	19	56	43
21	20	0	40
22	20	4	36
23	20	8	33
24	20	12	29
25	20	16	26
26	20	20	22
27	20	24	19
28	20	28	16
29	20	32	12
30	20	36	9
31	20	40	5
	FEB.		
1	20	44	2
2	20	47	58
3	20	51	55
4	20	55	51
5	20	59	48
6	21	3	45
7	21	7	41
8	21	11	38
9	21	15	34
10	21	19	31
11	21	23	27
12	21	27	24
13	21	31	20
14	21	35	17
15	21	39	14

Date	Sid. Time		
	FEB.		
	h	*m*	*s*
16	21	43	10
17	21	47	7
18	21	51	3
19	21	55	0
20	21	58	56
21	22	2	53
22	22	6	49
23	22	10	46
24	22	14	43
25	22	18	39
26	22	22	36
27	22	26	32
28	22	30	29
29	22	34	25
	MAR.		
1	22	34	25
2	22	38	22
3	22	42	18
4	22	46	15
5	22	50	12
6	22	54	8
7	22	58	5
8	23	2	1
9	23	5	58
10	23	9	54
11	23	13	51
12	23	17	47
13	23	21	44
14	23	25	41
15	23	29	37
16	23	33	34
17	23	37	30
18	23	41	27
19	23	45	23
20	23	49	20
21	23	53	16
22	23	57	13
23	0	1	10
24	0	5	6
25	0	9	3
26	0	12	59
27	0	16	56
28	0	20	52
29	0	24	49
30	0	28	45
31	0	32	42

Date	Sid. Time		
	APRIL		
	h	*m*	*s*
1	0	36	39
2	0	40	35
3	0	44	32
4	0	48	28
5	0	52	25
6	0	56	21
7	1	0	18
8	1	4	14
9	1	8	11
10	1	12	8
11	1	16	4
12	1	20	1
13	1	23	57
14	1	27	54
15	1	31	50
16	1	35	47
17	1	39	43
18	1	43	40
19	1	47	37
20	1	51	33
21	1	55	30
22	1	59	26
23	2	3	23
24	2	7	19
25	2	11	16
26	2	15	12
27	2	19	9
28	2	23	6
29	2	27	2
30	2	30	59
	MAY		
1	2	34	55
2	2	38	52
3	2	42	48
4	2	46	45
5	2	50	41
6	2	54	38
7	2	58	35
8	3	2	31
9	3	6	28
10	3	10	24
11	3	14	21
12	3	18	17
13	3	22	14
14	3	26	10
15	3	30	7
16	3	34	4

Date	Sid. Time		
	MAY		
	h	*m*	*s*
17	3	38	0
18	3	41	56
19	3	45	53
20	3	49	50
21	3	53	46
22	3	57	43
23	4	1	39
24	4	5	36
25	4	9	33
26	4	13	29
27	4	17	26
28	4	21	22
29	4	25	19
30	4	29	15
31	4	33	12
	JUNE		
1	4	37	8
2	4	41	5
3	4	45	2
4	4	48	58
5	4	52	55
6	4	56	51
7	5	0	48
8	5	4	44
9	5	8	41
10	5	12	37
11	5	16	34
12	5	20	31
13	5	24	27
14	5	28	24
15	5	32	20
16	5	36	17
17	5	40	13
18	5	44	10
19	5	48	6
20	5	52	3
21	5	56	0
22	5	59	56
23	6	3	53
24	6	7	49
25	6	11	46
26	6	15	42
27	6	19	39
28	6	23	35
29	6	27	32
30	6	31	29

Date	Sid. Time		
	JULY		
	h	*m*	*s*
1	6	35	25
2	6	39	22
3	6	43	18
4	6	47	15
5	6	51	11
6	6	55	8
7	6	59	4
8	7	3	1
9	7	6	58
10	7	10	54
11	7	14	51
12	7	18	47
13	7	22	44
14	7	26	40
15	7	30	37
16	7	34	33
17	7	38	30
18	7	42	27
19	7	46	23
20	7	50	20
21	7	54	16
22	7	58	13
23	8	2	9
24	8	6	6
25	8	10	2
26	8	13	59
27	8	17	56
28	8	21	52
29	8	25	49
30	8	29	45
31	8	33	42
	AUG.		
1	8	37	38
2	8	41	35
3	8	45	31
4	8	49	28
5	8	53	25
6	8	57	21
7	9	1	18
8	9	5	14
9	9	9	11
10	9	13	7
11	9	17	4
12	9	21	0
13	9	24	57
14	9	28	54
15	9	32	50

Sidereal Time : Table I—contd.

Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time	Date	Sid. Time
	AUGUST		SEPT.		OCT.		NOV.		DEC.
	h m s		h m s		h m s		h m s		h m s
16	9 36 47	12	11 23 14	9	13 9 41	5	14 56 8	2	16 42 35
17	9 40 43	13	11 27 10	10	13 13 37	6	15 0 4	3	16 46 31
18	9 44 40	14	11 31 7	11	13 17 34	7	15 4 1	4	16 50 28
19	9 48 36	15	11 35 3	12	13 21 30	8	15 7 57	5	16 54 24
20	9 52 33	16	11 39 0	13	13 25 27	9	15 11 54	6	16 58 21
21	9 56 29	17	11 42 56	14	13 29 23	10	15 15 50	7	17 2 17
22	10 0 26	18	11 46 53	15	13 33 20	11	15 19 47	8	17 6 14
23	10 4 23	19	11 50 50	16	13 37 16	12	15 23 43	9	17 10 10
24	10 8 19	20	11 54 46	17	13 41 13	13	15 27 40	10	17 14 7
25	10 12 16	21	11 58 43	18	13 45 10	14	15 31 37	11	17 18 4
26	10 16 12	22	12 2 39	19	13 49 6	15	15 35 33	12	17 22 0
27	10 20 9	23	12 6 36	20	13 53 3	16	15 39 30	13	17 25 57
28	10 24 5	24	12 10 32	21	13 56 59	17	15 43 26	14	17 29 53
29	10 28 2	25	12 14 29	22	14 0 56	18	15 47 23	15	17 33 50
30	10 31 58	26	12 18 25	23	14 4 52	19	15 51 19	16	17 37 46
31	10 35 55	27	12 22 22	24	14 8 49	20	15 55 16	17	17 41 43
		28	12 26 19	25	14 12 45	21	15 59 12	18	17 45 39
	SEPT.	29	12 30 15	26	14 16 42	22	16 3 9	19	17 49 36
		30	12 34 12	27	14 20 39	23	16 7 6	20	17 53 33
1	10 39 52			28	14 24 35	24	16 11 2	21	17 57 29
2	10 43 48		OCT.	29	14 28 32	25	16 14 59	22	18 1 26
3	10 47 45			30	14 32 28	26	16 18 55	23	18 5 22
4	10 51 41	1	12 38 8	31	14 36 25	27	16 22 52	24	18 9 19
5	10 55 38	2	12 42 5			28	16 26 48	25	18 13 15
6	10 59 34	3	12 46 1		NOV.	29	16 30 45	26	18 17 12
7	11 3 31	4	12 49 58			30	16 34 41	27	18 21 8
8	11 7 27	5	12 53 54	1	14 40 21			28	18 25 5
9	11 11 24	6	12 57 51	2	14 44 18		DEC.	29	18 29 2
10	11 15 21	7	13 1 48	3	14 48 14			30	18 32 58
11	11 19 17	8	13 5 44	4	14 52 11	1	16 38 38	31	18 36 55

SIDEREAL TIME—TABLE II—Correction for years

(Correction to the result of Table I for the years 1981 to 1985)

	1981	1982	1983	1984	1985
	m s	m s	m s	m s	m s
Jan. & Feb.	+1 30	+0 33	−0 25	−1 22	+1 37
Mar. to Dec.	+1 30	+0 33	−0 25	+2 35	+1 37

SIDEREAL TIME—TABLE III—Correction for places

Corrections for a few places are given below. For other places see the last page of Indian Ephemeris or the Tables of Ascendants.

Place	Correction	Place	Correction	Place	Correction
	m s		m s		m s
Allahabad	+0 0	Colombo	+0 2	Madras	+0 1
Bangalore	+0 2	Dhaka	−0 5	New York	+1 43
Bangkok	−0 12	Delhi	+0 3	Rangoon	−0 9
Bombay	+0 6	Greenwich	+0 54	Islamabad	+0 6
Calcutta	−0 4	Kuala Lumpur	−0 13	Varanasi	−0 0

The time interval of the epoch from 12h noon Local Mean Time is now to be subtracted from (if before noon) or added (if after noon) to the Sidereal time obtained from the above tables for 12h noon of the date and place in question. Before doing so the time interval is to be increased by 10 secs. per hour and then subtracted or added.

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1981										
January	2°N21′	1°S36′	1°N18′	2°S34′	1°S08′	21°S04′	0°N52′	21°S58′	1°S47′	24°S47′
February	2 30	1 31	1 27	2 45	1 04	14 05	0 S27	21 25	0 N07	11 16
March	2 36	0 S55	1 33	1 57	0 55	5 S49	1 17	12 S21	2 N08	12 48
April	2 39	0 N02	1 36	0 S25	0 40	3 N57	1 20	2 N33	2 S23	6 S52
May	2 37	0 49	1 32	0 N49	0 22	12 36	0 S31	16 19	0 N16	16 N25
June	2 31	1 07	1 25	1 07	0 S02	19 27	0 N43	24 03	1 N15	24 40
July	2 24	0 N48	1 18	0 N21	0 N18	23 12	1 32	21 21	4 S40	18 44
August	2 18	0 S06	1 12	1 S20	0 38	23 45	1 24	9 N31	0 N59	21 26
September	2 14	1 22	1 08	3 35	0 57	21 13	0 N06	6 S11	0 N14	1 N25
October	2 13	2 47	1 05	6 01	1 15	16 38	1 S47	19 42	3 S25	15 S29
November	2 14	4 13	1 05	8 31	1 35	10 40	3 19	26 40	2 N03	5 58
December	2 N19	5 S21	1 N07	10 S42	1 N56	4 N42	2 S57	24 S12	0 S08	20 S58
1982										
January	2 N26	6 S07	1 N11	12 S26	2 N20	0 S39	1 N31	16 S34	2 S09	23 S41
February	2 34	6 17	1 16	13 27	2 49	4 04	7 31	13 40	3 N29	13 48
March	2 41	5 54	1 22	13 37	3 12	4 23	5 18	15 09	0 S32	17 19
April	2 46	5 05	1 26	12 57	2 59	1 S17	1 N25	12 01	2 S01	1 S45
May	2 45	4 15	1 27	11 46	1 48	1 N12	1 S08	2 S35	2 N17	22 N12
June	2 39	3 45	1 22	10 43	0 N35	0 S34	2 S05	9 N59	2 S06	20 05
July	2 32	3 49	1 14	10 29	0 S13	5 19	1 34	19 51	2 S33	20 19
August	2 24	4 28	1 06	11 11	0 46	11 42	0 S15	22 29	1 N46	17 N49
September	2 19	5 33	0 59	12 38	1 08	18 06	0 N59	15 17	1 S41	3 S25
October	2 16	6 51	0 54	14 27	1 20	22 54	1 27	1 N51	2 S42	6 29
November	2 16	8 13	0 51	16 24	1 24	24 51	0 N55	13 S08	1 N39	8 44
December	2 N18	9 S22	0 N50	18 S09	1 S21	22 S50	0 S12	22 S48	1 S28	24 S01
1983										
January	2 N24	10 S14	0 N49	19 S35	1 S09	16 S51	1 S16	22 S33	1 S01	21 S15
February	2 31	10 35	0 51	20 35	0 53	8 S08	1 32	11 S54	2 N02	20 16
March	2 38	10 26	0 52	21 04	0 35	0 N41	0 S50	2 N13	1 S51	16 S31
April	2 44	9 50	0 55	21 11	0 S14	10 02	0 N41	17 02	0 S24	6 N07
May	2 44	9 03	0 56	20 55	0 N06	17 28	2 08	25 13	2 N24	21 29
June	2 40	8 26	0 54	20 21	0 25	22 27	2 34	23 44	3 S49	13 31
July	2 33	8 17	0 49	19 49	0 41	24 07	0 N54	14 41	0 N09	23 34
August	2 25	8 11	0 42	19 42	0 55	22 35	4 S02	4 20	0 N53	12 N32
September	2 18	9 32	0 35	20 08	1 07	18 20	8 26	4 27	3 S55	3 S52
October	2 13	10 39	0 30	20 56	1 17	12 27	4 S05	8 34	1 N08	5 N15
November	2 12	11 53	0 25	21 52	1 26	5 N26	0 N12	3 N34	0 N17	14 S10
December	2 N13	12 S59	0 N22	22 S37	1 N33	1 S29	2 N10	7 S07	2 S20	25 S41
1984										
January	2 N16	13 S51	0 N19	23 S03	1 N39	8 S02	2 N10	18 S01	2 N40	20 S32
February	2 22	14 20	0 17	23 08	1 41	13 17	0 N53	22 20	0 S13	22 21
March	2 29	14 21	0 15	22 57	1 37	16 40	0 S32	17 20	2 S05	12 S00
April	2 35	13 58	0 13	22 43	1 16	18 32	1 26	4 S40	2 N16	13 N41
May	2 37	13 20	0 11	22 38	0 N20	18 32	1 20	9 N42	0 S59	9 32
June	2 34	12 43	0 08	22 50	1 S05	17 06	0 S23	21 02	2 S33	14 59
July	2 27	12 26	0 N04	23 09	1 58	17 28	0 N46	23 31	1 N49	23 57
August	2 19	12 37	0 S01	23 23	2 19	20 29	1 27	15 40	1 S22	7 59
September	2 11	13 14	0 05	23 29	2 21	24 00	1 N08	1 N09	3 20	7 27
October	2 06	14 08	0 08	23 29	2 10	25 35	0 S02	13 S16	1 N47	1 N30
November	2 03	15 11	0 10	23 19	1 51	23 55	1 31	24 01	1 S17	19 S27
December	2 N02	16 S09	0 S13	22 S51	1 S26	18 S43	2 S18	24 S11	1 S55	25 S21

LATITUDES AND DECLINATIONS

Geocentric latitudes and declinations of planets for 1st of each month.

	Saturn		Jupiter		Mars		Venus		Mercury	
	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1985										
January	2° N04′	16° S56′	0° S15′	21° S59′	0° S57′	10° S31′	1° S35′	14° S13′	2° N12′	20° S42′
February	2 09	17 26	0 18	20 43	0 29	0 S58	1 N10	0 N34	1 S38	21 51
March	2 14	17 34	0 21	19 22	0 S06	7 N34	5 13	12 22	1 S02	5 S23
April	2 19	17 22	0 26	17 54	0 N16	15 44	7 58	13 36	3 N08	9 N06
May	2 22	16 56	0 31	16 49	0 34	21 21	2 N07	4 36	2 S50	2 51
June	2 21	16 25	0 38	16 22	0 48	24 07	2 S03	7 52	0 S21	20 18
July	2 15	16 05	0 45	16 47	0 58	23 38	2 51	16 06	1 N29	21 12
August	2 08	16 05	0 51	17 53	1 05	20 13	1 49	21 37	4 S18	9 15
September	2 00	16 29	0 53	18 56	1 10	14 33	0 S07	19 01	0 N38	14 N58
October	1 54	17 09	0 53	19 21	1 12	7 42	1 N12	8 N36	0 N42	4 S55
November	1 50	17 58	0 51	18 58	1 12	0 N01	1 32	6 S06	2 S30	22 41
December	1 N48	18 S44	0 S49	17 S53	1 N09	7 S18	0 N52	18 S36	1 N39	19 S18

Year	Uranus		Neptune		Pluto	
	Lat.	Decli.	Lat.	Decli.	Lat.	Decli.
1981	0° N13′	19° S35′	1° N18′	21° S58′	17° N00′	6° N28′
1982	0 10	20 32	1 15	22 06	16 56	5 31
1983	0 07	21 22	1 13	22 12	16 50	4 34
1984	0 N03	22 04	1 10	22 17	16 42	3 36
1985	0 S00	22 S38	1 N07	22 S19	16 N33	2 N48

SAYANA TRANSIT OF SUN

(Sun's entry into Tropical Signs or Sayana Basis)

Time given in I. S. T.

Sign	1981			1982			1983		
		d	h		d	h		d	h
Aquarius	Jan.	20	9·1	Jan.	20	15·0	Jan.	20	20·8
Pisces	Feb.	18	23·4	Feb.	18	29·3	Feb.	19	11·0
Aries	Mar.	20	22·6	Mar.	20	28·4	Mar.	21	10·2
Taurus	Apr.	20	9·8	Apr.	20	15·6	Apr.	20	21·3
Gemini	May	21	9·2	May	21	14·9	May	21	20·6
Cancer	June	21	17·3	June	21	22·9	June	21	28·7
Leo	July	22	28·2	July	23	9·8	July	23	15·6
Virgo	Aug.	23	11·1	Aug.	23	16·8	Aug.	23	22·6
Libra	Sept.	23	8·6	Sept.	23	14·3	Sept.	23	20·2
Scorpio	Oct.	23	17·7	Oct.	23	23·5	Oct.	23	29·4
Sagittarius	Nov.	22	15·1	Nov.	22	20·9	Nov.	22	26·8
Capricorn	Dec.	21	28·4	Dec.	22	10·2	Dec.	22	16·0

Sign	1984			1985		
		d	h		d	h
Aquarius	Jan.	20	26·6	Jan.	20	8·5
Pisces	Feb.	19	16·8	Feb.	18	22·6
Aries	Mar.	20	15·9	Mar.	20	21·7
Taurus	Apr.	19	27·1	Apr.	20	8·9
Gemini	May	20	26·5	May	21	8·2
Cancer	June	21	10·5	June	21	16·2
Leo	July	22	21·5	July	22	27·1
Virgo	Aug.	22	28·5	Aug.	23	10·1
Libra	Sept.	22	26·1	Sept.	23	7·6
Scorpio	Oct.	23	11·3	Oct.	23	16·9
Sagittarius	Nov.	22	8·7	Nov.	22	1[illegible]·4
Capricorn	Dec.	21	21·9	Dec.	21	27·6

Example of Moon's Latitude

Find the latitude of Moon at 5-30 A.M. on March 1, 1982. At the epoch Moon = 0s21°15′. Rahu = 2s27°58′. Moon—Rahn = 9s23°17′ = 293°17. Against this figure, the latitude is obtained from the table on page 45 as 4°43′ S approximately (actual value is 4°42′S).

Latitude of Moon

To be found from ☽ *minus* ☊ = Moon − Rāhu. When ☽ − ☊ is less than 180°, the latitude is North, thereafter it is South.

☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊	☽ − ☊	Lat.	☽ − ☊
0°	N0° 0′S	360°	45°	N3° 38′S	315°	90°	N5° 9′S	270°	135°	N3° 38′S	225°
5	0 27	355	50	3 56	310	95	5 7	265	140	3 18	220
10	0 54	350	55	4 13	305	100	5 4	260	145	2 57	215
15	1 20	345	60	4 27	300	105	4 58	255	150	2 34	210
20	1 46	340	65	4 40	295	110	4 50	250	155	2 10	205
25	2 10	335	70	4 50	290	115	4 40	245	160	1 46	200
30	2 34	330	75	4 58	285	120	4 27	240	165	1 20	195
35	2 57	325	80	5 4	280	125	4 13	235	170	0 54	190
40	3 18	320	85	5 7	275	130	3 56	230	175	0 27	185
45	3 38	315	90	5 9	270	135	3 38	225	180	0 0	180

Declination

Declination of Sun can be found from the following table according to the tropical longitude of the Sun. (The trop. long. is to be obtained by adding ayanamsa to the N. long.). When the tropical longitude is less than 180° degrees, the declination is North ; if greater than 180° degrees, deduct 180° from the tropical long. and find the declination which is then South.

Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.	Trop. Long.	Decli.	Trop. Long.
0°	0° 0′	180°	23°	8° 57′	157°	46°	16° 39′	134°	69°	21° 49′	111°
1	0 24	179	24	9 19	156	47	16 56	133	70	21 58	110
2	0 48	178	25	9 41	155	48	17 12	132	71	22 7	109
3	1 12	177	26	10 3	154	49	17 29	131	72	22 15	108
4	1 36	176	27	10 24	153	50	17 45	130	73	22 23	107
5	1 59	175	28	10 46	152	51	18 1	129	74	22 30	106
6	2 23	174	29	11 7	151	52	18 17	128	75	22 37	105
7	2 47	173	30	11 29	150	53	18 32	127	76	22 43	104
8	3 11	172	31	11 50	149	54	18 47	126	77	22 49	103
9	3 34	171	32	12 11	148	55	19 2	125	78	22 55	102
10	3 58	170	33	12 31	147	56	19 16	124	79	23 0	101
11	4 21	169	34	12 52	146	57	19 30	123	80	23 5	100
12	4 45	168	35	13 12	145	58	19 44	122	81	23 9	99
13	5 8	167	36	13 32	144	59	19 57	121	82	23 13	98
14	5 31	166	37	13 52	143	30	20 10	120	83	23 16	97
15	5 55	165	38	14 11	142	61	20 22	119	84	23 19	96
16	6 18	164	39	14 30	141	62	20 34	118	85	23 22	95
17	6 41	163	40	14 49	140	63	20 46	117	86	23 24	94
18	7 4	162	41	15 8	139	64	20 58	116	87	23 25	93
19	7 27	161	42	15 27	138	65	21 9	115	88	23 26	92
20	7 50	160	43	15 45	137	66	21 19	114	89	23 27	91
21	8 12	159	44	16 3	136	67	21 30	113	90	23 27	90
22	8 34	158	45	16 21	135	68	21 40	112	—	—	—

Declination of Planets (including Moon)

Firstly find the declination from the table on prepage (as in the case of the Sun) from the tropical longitude of the planet. This may be called *declination of place*

Then take the latitude of the planet and reduce it to mins. of arc. Multiply it by the multiplier from the following table. Now make it degrees and mins. This *reduced latitude* is to be applied in the following way to the declination of place found above. The final result will give the true declination of the planet.

When declination of place is North—

If lat. is North, the true decli. = decli. of place + reduced lat.
If lat. is South, the true decli. = decli. of place − reduced lat.

When declination of Place is South—

If lat. is North, the true decli. = decli of place − reduced lat.
If lat. is South, the true decli. = decli of place + reduced lat.

Tropical long. of planet				Multiplier	Tropical long. of planet				Multiplier
0°	180°	180°	360°	0·917	50°	130°	230°	310°	0·963
10	170	190	350	0·920	60	120	240	300	0·978
20	160	200	340	0·926	70	110	250	290	0·989
30	150	210	330	0·936	80	100	260	280	0·997
40	140	220	320	0·949	90	90	270	270	1·000
50	130	230	310	0·963					

Example :—Find the declination of Moon on 1st Mar. 1932. N. long. of Moon on that date = 0s 21° 15′. *Ayanamsa* = 23° 36′. Therefore trop. long. = 1s 14° 51′ = 44° 51′. Now the *declination of place* is found to be 16° N 18′ and the *multiplier* is found from the above table as 0·956. The latitude of Moon on that date is 4° S 42′ = 282′. This multiplied by ·956 gives 270′ = 4°30′ S. Here we get declination of place as north and the latitude as south. Hence the true declination = 16°18′ − 4°30′ = 11°48′ North (The actual value is 11° N 47′)

How to determine the Tithi

Subtract the longitude of Sun from the longitude of Moon for the given moment. The difference in signs, degrees and mins. is represented by the symbol ☽ − ☉. If ☽ − ☉ is less than 12°, the 1st *tithi* of the light half *(Sukla paksha)* is then current. This *tithi* will remain current until ☽ − ☉ becomes exactly 12° degrees. So for other *tithis* also.

The following table shows the long. of ☽ − ☉ indicating the end of each *tithi*. If ☽ − ☉ is greater than 6 signs, subtract 6 signs from it and find the *tithi* with the remainder which is then of the dark half *(Krishna paksha)* of the month.

☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi	☽ − ☉		Tithi
s	°		s	°		s	°		s	°		s	°	
0	12	1	1	18	4	2	24	7	4	0	10	5	6	13
0	24	2	2	0	5	3	6	8	4	12	11	5	18	14
1	6	3	2	12	6	3	18	9	4	24	12	6	0	15

Entrance of Planets into Nirayana Signs

MARS

Enters:	d	m	y	d	m	y	d	m	y	d	m	y
Mesha				16	4	81	28	3	83	6	3	85
Vrisha				27	5	81	7	5	83	17	4	85
Mithuna				8	7	81	19	6	83	30	5	85
Karkata				23	8	81	3	8	83	15	7	85
Simha				10	10	81	19	9	83	31	8	85
Kanya				2	12	81	7	11	83	17	10	85
Tula				22	7	82	30	12	83	4	12	85
,,					—		3	5	84			
Vriscika				10	9	82	6	2	84			
,,					—		4	8	84			
Dhanus				23	10	82	25	9	84			
Makara				2	12	82	7	11	84			
Kumbha	23	1	81	9	1	83	16	12	84			
Mina	8	3	81	16	2	83	25	1	85			

JUPITER

Enters :—			*Enters* :—		
Tula	on	Oct. 27, 1981	Dhanus	on	Dec. 21, 1983
Vriscika	,,	Nov. 26, 1982	Makara	,,	Jan. 10, 1985

SATURN

In Kanya enters Tula on Oct. 6, 1982 enters Vriscika on Dec. 21, 1984, enters Tula R on May 31, 1985 and again enters Vriscika on Sept. 16, 1985.

URANUS

Remains in Vriscika from Oct. 10, 1980 onwards.

NEPTUNE—in Vriscika enters Dhanus on Jan. 16, 1981
enters Vriscika R on June 10, 1981
enters Dhanus on Nov. 20, 1981

PLUTO—in Tula enters Kanya R. on Mar. 21, 1981
enters Tula on Sept. 30, 1981

RAHU (True)

Enters :—			*Enters* :—		
Mithuna	on	Nov. 25, 1981	Vrisha	on	Aug. 12, 1983
Mesha	on	Jan. 29, 1985			

LUNAR ECLIPSES

(The timings are given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality begins		Totality ends		Eclipse ends		Visibility in India
	h	m	h	m	h	m	h	m	h	m	
1981 July 17P	10	17	8	55	—		—		11	39	Invisible
1982 Jan. 9T	25	26	23	44	24	47	26	05	27	03	Visible
,, July 6T	13	01	11	03	12	03	13	54	14	59	Invisible
,, Dec. 30T	16	59	15	21	16	28	17	29	18	37	Visible
1983 June 25P	13	52	12	45	—		—		15	00	Invisible
1984	—		—		—		—		—		—
1985 May 4T	25	26	23	47	24	52	26	01	27	06	Visible
,, Oct. 28T	23	12	21	25	22	30	23	35	25	00	,,

T = Total lunar eclipse P = Partial lunar eclipse

SOLAR ECLIPSES

(Given in Indian Standard Time)

Date	Middle of eclipse		Eclipse begins		Totality or Annu. begins		Totality or Annu. ends		Eclipse ends		Visibility in India
	h	m	h	m	h	m	h	m	h	m	
1981 Feb. 5R	3	39	0	58	2	03	5	14	6	19	Invisible
,, July 31T	9	16	6	41	7	48	10	44	11	50	Visible
1982 Jan. 25P	10	12	8	20	—		—		12	04	Invisible
,, June 21P	17	34	15	58	—		—		19	10	,,
,, July 20P	24	14	22	49	—		—		25	39	,,
,, Dec. 15P	15	01	12	52	—		—		17	11	Visible
1983 June 11T	10	13	7	40	8	41	11	44	12	46	Partly visible
,, Dec. 4R	18	00	15	11	16	18	19	43	20	50	Invisible
1984 May 30R	22	15	19	24	20	23	24	02	25	05	,,
,, Nov. 23T	4	23	1	43	2	43	6	04	7	03	,,
1985 May 19P	26	59	24	45	—		—		29	12	,,
,, Nov. 12T	19	41	17	39	19	21	20	00	21	42	,, ,,

T = Total solar eclipse R = Annular solar eclipse P = Partial solar eclipse

Navamsa Signs and their Lords

NAVAMSAS

Sign	1st 0° 0' to 3°20'	2nd 3°20' to 6°40'	3rd 6°40' to 10°0'	4th 10°0' to 13°20'	5th 13°20' to 16°40'	6th 16°40' to 20°0'	7th 20°0' to 23°20'	8th 23°20' to 26° 40	9th 26°40' to 30°0'
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vriscika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Raśi) of Mesha, etc. The Lords of the navamsa signs are indicated by the planetary symbols.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakshatra	Long.	Vimśottarī Daśa	Nakṣatra	Long.	Vimśottarī Daśa
	s ° '	yrs.		s ° '	yrs.
1 Aśvinī	0 0 0	Ketu 7	15 Svati	6 6 40	Rāhu 18
2 Bharaṇī	0 13 20	Venus 20	16 Viśākhā	6 20 0	Jupiter 16
3 Kṛttikā	0 26 40	Sun 6	17 Anurādhā	7 3 20	Saturn 19
4 Rohiṇī	1 10 0	Moon 10	18 Jyeṣṭhā	7 16 40	Mercury 17
5 Mṛgaśiras	1 23 20	Mars 7	19 Mūla	8 0 0	Ketu 7
6 Ardra	2 6 40	Rāhu 18	20 Pūrvāṣāḍhā	8 13 20	Venus 20
7 Punarvasu	2 20 0	Jupter 16	21 Uttarāṣāḍhā	8 26 40	Sun 6
8 Puṣya	3 3 20	Saturn 19	22 Śravaṇa	9 10 0	Moon 10
9 Āśleṣā	3 16 40	Mercury 17	23 Dhaniṣṭhā	9 23 20	Mars 7
10 Maghā	4 0 0	Ketu 7	24 Śatabhiṣaj	10 6 40	Rāhu 18
11 P. Phalguni	4 13 20	Venus 20	25 P.Bhādrapad	10 20 0	Jupiter 16
12 U. Phalagunī	4 26 40	Sun 6	26 U.Bhādrapad	11 3 20	Saturn 19
13 Hasta	5 10 0	Moon 10	27 Revatī	11 16 40	Mercury 17
14 Citrā	5 23 20	Mars 7	1 Aśvinī	12 0 0	Ketu 7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40' 0" to 9s 10° 53' 20".

SUNRISE AND SUNSET

Find the duration of half-day utilising the declination of Sun and latitude of place from the table of *Chara* i.e. ascensional differences as given in the Indian Ephemeris and deduct it from or add it to the apparent noon-time to get Sunrise and Sunset times. The apparent noon is almost the same on corresponding English dates every year.

The Sunrise and Sunset times for a particular latitude are nearly the same on corresponding English dates at intervals of 4yrs. 8yrs, 12yrs., etc., and again after 21yrs., 25yrs., 29yrs., 33yrs., 37yrs., 41yrs., 45yrs.

Motion of planets

Movement of the Sun and planets (except Mercury) from 5-30 a.m. of the preceding given date up to the desired moment can be found from the following table according to the motion for 2 days obtained from the ephemeris

Day and Time (I.S.T.)		Motion for 2 days								
		10′	20′	30′	40′	50′	1°-00′	1°-30′	2°-00′	2°-30′
		′	′	′	′	′	° ′	° ′	° ′	° ′
Given date	5-30 a.m.	0	0	0	0	0	0 00	0 00	0 00	0 00
" "	11-30 a.m.	1	2	4	5	6	0 08	0 12	0 15	0 19
" "	5-30 p.m.	3	5	8	10	12	0 15	0 23	0 30	0 38
" "	11-30 p.m.	4	7	11	15	19	0 23	0 34	0 45	0 56
2nd day "	5-30 a.m.	5	10	15	20	25	0 30	0 45	1 00	1 15
" "	11-30 a.m.	6	12	19	25	31	0 38	0 57	1 15	1 34
" "	5-30 p.m.	8	15	23	30	38	0 45	1 08	1 30	1 53
" "	11-30 p.m.	9	17	26	35	44	0 53	1 19	1 45	2 11
3rd day "	5-30 a.m.	10	20	30	40	50	1 00	1 30	2 00	2 30
Motion for 3 hrs.		1	1	2	2	3	4	6	7	10

Motion of Moon

Movement of the Moon up to the desired moment from 5-30 A.M. of the given date can be found according to its daily motion obtained from the ephemeris

Time (I.S.T.)	Moon's daily motion								
	11° 30′	12° 0′	12° 30′	13° 0′	13° 30′	14° 0′	14° 30′	15° 0′	15° 30′
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
5 30 a.m.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6 30	0 29	0 30	0 31	0 32	0 34	0 35	0 36	0 37	0 39
7 30	0 57	1 0	1 2	1 5	1 7	1 10	1 12	1 15	1 17
8 30	1 26	1 30	1 34	1 37	1 41	1 45	1 49	1 52	1 56
9 30	1 55	2 0	2 5	2 10	2 15	2 20	2 25	2 30	2 35
10 30	2 24	2 30	2 36	2 42	2 49	2 55	3 1	3 7	3 14
11 30 a.m.	2 52	3 0	3 7	3 15	3 22	3 30	3 37	3 45	3 52
0 30 p.m.	3 21	3 30	3 39	3 47	3 56	4 5	4 14	4 22	4 31
1 30	3 50	4 0	4 10	4 20	4 30	4 40	4 50	5 0	5 10
2 30	4 19	4 30	4 41	4 52	5 4	5 15	5 26	5 37	5 49
3 30	4 47	5 0	5 12	5 25	5 37	5 50	6 2	6 15	6 27
4 30	5 16	5 30	5 44	5 57	6 11	6 25	6 39	6 52	7 6
5 30	5 45	6 0	6 15	6 30	6 45	7 0	7 15	7 30	7 45
6 30	6 14	6 30	6 46	7 2	7 19	7 35	7 51	8 7	8 24
7 30	6 42	7 0	7 17	7 35	7 52	8 10	8 27	8 45	9 2
8 30	7 11	7 30	7 49	8 7	8 26	8 45	9 4	9 22	9 41
9 30	7 40	8 0	8 20	8 40	9 0	9 20	9 40	10 0	10 20
10 30	8 9	8 30	8 51	9 12	9 34	9 55	10 16	10 37	10 59
11 30 p.m.	8 37	9 0	9 22	9 45	10 7	10 30	10 52	11 15	11 37
12 30 a.m.	9 6	9 30	9 54	10 17	10 41	11 5	11 29	11 52	12 16
1 30	9 35	10 0	10 25	10 50	11 15	11 40	12 5	12 30	12 55
2 30	10 4	10 30	10 56	11 22	11 49	12 15	12 41	13 7	13 34
3 30	10 32	11 0	11 27	11 55	12 22	12 50	13 17	13 45	14 12
4 30	11 1	11 30	11 50	12 27	12 56	13 25	13 54	14 22	14 51
5 30 a.m.	11 30	12 0	12 30	13 0	13 30	14 0	14 30	15 0	15 30

Motion of Rahu, Uranus, Neptune and Pluto

Motion for 30 days distributed

Day	20′	40′	1°–0′	1°–30′	1°–35′	1°–40′	2°–0′	2°–30′	3°–0′	3°–30′
2	1′	3′	4′	6′	6′	7′	8′	10′	12′	14′
4	3	5	8	12	13	13	16	20	24	28
6	4	8	12	18	19	20	24	30	36	42
8	5	11	16	24	25	27	32	40	48	56
10	7	13	20	30	32	33	40	50	1– 0	1–10
15	10	20	30	45	48	50	1– 0	1–15	1–30	1–45
20	13	27	40	1– 0	1– 3	1– 7	1–20	1–40	2– 0	2–20
25	17	33	50	1–15	1–19	1–23	1–40	2– 5	2–30	2–55
30	20	40	60	1–30	1–35	1–40	2– 0	2–30	3– 0	3–30

Longitudes of Planets at the given time

The longitudes of planets (including Sun and Moon) required for any given moment can be calculated from those provided in the ephemeris for the two epochs one preceding and the other following the given moment, by utilising the motion for 2 days (one day in case of Mercury and also of Moon) obtained from the ephemeris by subtraction. In the calculation, the tables given on the previous page may be used, or to be more accurate, the two logarithmic tables given at the end of the book may be utilised.

For the longitude of the Moon (and also of Mercury) the logarithmic calculation is to be done with the help of Table I alone but for other planets both Tables I and II will have to be used. Example for finding the moon's longitude by Prop. Logarithm has been given at the bottom of Table I on page 59. The use of the table in case of other planets is illustrated below.

Example I—Find the long. of Sun on Aug. 15, 1983 at *h* 0-30 A.M. (i.e. after midnight of Aug. 14). Long. of Sun on Aug. 13, 1983, 5-30 A.M. = 3ˢ 26° 04′ ; motion in next two days 1° 56′, its log from Table I = 1·0939. Aug. 15 is the third day from Aug. 13. So from Table II under column third day or next given date and against the given time 0-30 A.M. the log is found to be ·0478. The sum of these two logarithms is 1·1417, which is the logarithm of 1°44′ nearly (from Table I). Hence the required longitude of Sun is 3ˢ26°04′ + 1°44′ = 3ˢ27°48′. In the same way the longitudes of Saturn, Jupiter, Mars and Venus can be obtained.

For Mercury the calculation is slightly different. For example let us find the long. of Mercury on Aug. 16, 1983, at 3-0 P.M. The longitude has been given for Aug. 16 (= 4ˢ 26° 03′) and for Aug. 17 (= 4ˢ 27° 09′). Hence the motion for 1 day = 1° 06′ ; its log is 1·3388 (Table I). From Table II in the portion for Mercury, log given date 3-0 P.M. = ·4025. Sum of these two is 1·7413, which is the log of 0°26′ (Table I). Hence the required long. of Mercury is 4ˢ 26° 03′ + 0°26′ = 4ˢ26°29′.

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon			Krittikādi Daśā				Ardrādi Daśā			
	s	°	′		y	m	d		y	m	d
1 Aśvinī	0	0	0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0	13	20		5	3	0		3	0	0
3 Kṛtikā	0	26	40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1	10	0		4	0	0		14	0	0
5 Mṛgaśiras	1	23	20		2	0	0		7	0	0
6 Ārdrā	2	6	40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2	20	0		11	3	0		4	6	0
8 Puṣya	3	3	20		7	6	0		3	0	0
9 Āśleṣā	3	16	40		3	9	0		1	6	0
10 Maghā	4	0	0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4	13	20		5	4	0		10	0	0
12 U. Phalguni	4	26	40		2	8	0		5	0	0
13 Hasta	5	10	0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5	23	20		12	9	0		6	0	0
15 Svātī	6	6	40		8	6	0		4	0	0
16 Viśākhā	6	20	0		4	3	0		2	0	0
17 Anurādha	7	3	20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7	16	40		6	8	0		11	4	0
19 Mūla	8	0	0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8	13	20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8	26	40		12	8	0		6	8	0
22 Sravaṇa	9	10	0		6	4	0		3	4	0
23 Dhaniṣṭhā	9	23	20	Rahu	12	0	0	Jupiter	19	0	0
24 Satabhiṣaj	10	6	40		8	0	0		12	8	0
25 P. Bhadrapada	10	20	0		4	0	0		6	4	0
26 U. Bhādrapadā	11	3	20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11	16	40		15	9	0		9	0	0
1 Asvinī	12	0	0		10	6	0		6	0	0

Proportional Parts for Dasa of Planets

(To be subtracted from the balance of dasa given above)

Long. of Moon	Sun (6y)		Moon (15y)		Mars (8y)		Mercury (17y)		Saturn (10y)		Jupiter (19y)		Rahu (12y)		Venus (21y)	
Krittikadi	m	d	m	d	m	d	m	d	m	d.	m	d	m	d	m	d
0° 10′	0	9·0	0	16·9	0	12·0	0	19·1	0	15·0	0	28·5	0	18·0	0	23·6
1 0	1	24·0	3	11·3	2	12·0	3	24·6	3	0·0	5	21·0	3	18·0	4	21·8
1 20	2	12·0	4	15·0	3	6·0	5	3·0	4	0·0	7	18·0	4	24·0	6	9·0
4 0	7	6·0	13	15·0	9	18·0	15	9·0	12	0·0	22	24·0	14	12·0	18	27·0
13 20	24	0·0	45	0·0	32	0·0	51	0·0	40	0·0	76	0·0	48	0·0	63	0·0
Nakshatras	3, 4, 5		6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2	
Ardradi	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d
0° 10′	0	6·8	0	22·5	0	9·0	0	25·5	0	15·0	0	28.5	0	13.5	1	1·5
1 0	1	10·5	4	15·0	1	24·0	5	3·0	3	0·0	5	21.0	2	21.0	6	9·0
1 20	1	24·0	6	0·0	2	12·0	6	24·0	4	0·0	7	18·0	3	18.0	8	12·0
4 0	5	12·0	18	0·0	7	6·0	20	12·0	12	0·0	22	24·0	10	24.0	25	6·0
13 20	18	0·0	60	0·0	24	0·0	68	0·0	40	0·0	76	0·0	36	0.0	84	0·0
Nakshatras	6–9		10,11,12		13–16		17,18,19		20,21,22		23,24,25		26–2		3,4,5	

ASTOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—15						Mars (Mangala)—8							
	Sub Periods			Total			Sub Periods			Total			Sub Periods				Total			
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	h	y	m	d	h
Sun	0	4	0	0	4	0		—			—				—				—	
Moon	0	10	0	1	2	0	2	1	0	2	1	0			—				—	
Mars	0	5	10	1	7	10	1	1	10	3	2	10	0	7	3	8	0	7	3	8
Mercury	0	11	10	2	6	20	2	4	10	5	6	20	1	3	3	8	1	10	6	16
Saturn	0	6	20	3	1	10	1	4	20	6	11	10	0	8	26	16	2	7	3	8
Jupiter	1	0	20	4	2	0	2	7	20	9	7	0	1	4	26	16	4	0	0	0
Rahu	0	8	0	4	10	0	1	8	0	11	3	0	0	10	20	0	4	10	20	0
Venus	1	2	0	6	0	0	2	11	0	14	2	0	1	6	20	0	6	5	10	0
Sun		—			—		0	10	0	15	0	0	0	5	10	0	6	10	20	00
Moon		—			—			—			—		1	1	10	0	8	0	0	0

DASA

Antardaśā	Mercury (Budha)—17								Saturn (Sani)—10							
	Sub Periods				Total				Sub Periods				Total			
	y	m	d	h	y	m	d	h	y	m	d	h	y	m	d	h
Mercury	2	8	3	8	2	8	3	8		—				—		
Saturn	1	6	26	16	4	3	0	0	0	11	3	8	0	11	3	8
Jupiter	2	11	26	16	7	2	26	16	1	9	3	8	2	8	6	16
Rahu	1	10	20	0	9	1	16	16	1	1	10	0	3	9	16	16
Venus	3	3	20	0	12	5	6	16	1	11	10	0	5	8	26	16
Sun	0	11	10	0	13	4	16	16	0	6	20	0	6	3	16	16
Moon	2	4	10	0	15	8	26	16	1	4	20	0	7	8	6	16
Mars	1	3	3	8	17	0	0	0	0	8	26	16	8	5	3	8
Mercury		—				—			1	6	26	16	10	0	0	0

DASA

Antardaśā	Jupiter (Brihaspati)—19								Rahu—12						Venus (Sukra)—21					
	Sub Periods				Total				Sub Periods			Total			Sub Periods			Total		
	y	m	d	h	y	m	d	h	y	m	d	y	m	d	y	m	d	y	m	d
Jupiter	3	4	3	8	3	4	3	8		—			—			—			—	
Rahu	2	1	10	0	5	5	13	8	1	4	0	1	4	0		—			—	
Venus	3	8	10	0	9	1	23	8	2	4	0	3	8	0	4	1	0	4	1	0
Sun	1	0	20	0	10	2	13	8	0	8	0	4	4	0	1	2	0	5	3	0
Moon	2	7	20	0	12	10	3	8	1	8	0	6	0	0	2	11	0	8	2	0
Mars	1	4	26	16	14	3	0	0	0	10	20	6	10	20	1	6	20	9	8	20
Mercury	2	11	26	16	17	2	26	16	1	10	20	8	9	10	3	3	20	13	0	10
Saturn	1	9	3	8	19	0	0	0	1	1	10	9	10	20	1	11	10	14	11	20
Jupiter		—				—			2	1	10	12	0	0	3	8	10	18	8	0
Rahu		—				—				—			—		2	4	0	21	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon		*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
°	′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
0	0	Ketu	7	0	0	SUN	4	6	0	MARS	3	6	0	JUPITER	4	0	0
0	20		6	9	27		4	4	6		3	3	27		3	7	6
0	40		6	7	24		4	2	12		3	1	24		3	2	12
1	0		6	5	21		4	0	18		2	11	21		2	9	18
1	20		6	3	18		3	10	24		2	9	18		2	4	24
1	40		6	1	15		3	9	0		2	7	15		2	0	0
2	0		5	11	12		3	7	6		2	5	12		1	7	6
2	20		5	9	9		3	5	12		2	3	9		1	2	12
2	40		5	7	6		3	3	18		2	1	6		0	9	18
3	0		5	5	3		3	1	24		1	11	3		0	4	24
3	20		5	3	0		3	0	0		1	9	0	Saturn	19	0	0
3	40		5	0	27		2	10	6		1	6	27		18	6	9
4	0		4	10	24		2	8	12		1	4	24		18	0	18
4	20		4	8	21		2	6	18		1	2	21		17	6	27
4	40		4	6	18		2	4	24		1	0	18		17	1	6
5	0		4	4	15		2	3	0		0	10	15		16	7	15
5	20		4	2	12		2	1	6		0	8	12		16	1	24
5	40		4	0	9		1	11	12		0	6	9		15	8	3
6	0		3	10	6		1	9	18		0	4	6		15	2	12
6	20		3	8	3		1	7	24		0	2	3		14	8	21
6	40		3	6	0		1	6	0	Rahu	18	0	0		14	3	0
7	0		3	3	27		1	4	6		17	6	18		13	9	9
7	20		3	1	24		1	2	12		17	1	6		13	3	18
7	40		2	11	21		1	0	18		16	7	24		12	9	27
8	0		2	9	18		0	10	24		16	2	12		12	4	6
8	20		2	7	15		0	9	0		15	9	0		11	10	15
8	40		2	5	12		0	7	6		15	3	18		11	4	24
9	0		2	3	9		0	5	12		14	10	6		10	11	3
9	20		2	1	6		0	3	18		14	4	24		10	5	12
9	40		1	11	3		0	1	24		13	11	12		9	11	21
10	0		1	9	0	Moon	10	0	0		13	6	0		9	6	0
10	20		1	6	27		9	9	0		13	0	18		9	0	9
10	40		1	4	24		9	6	0		12	7	6		8	6	18
11	0		1	2	21		9	3	0		12	1	24		8	0	27
11	20		1	0	18		9	0	0		11	8	12		7	7	6
11	40		0	10	15		8	9	0		11	3	0		7	1	15
12	0		0	8	12		8	6	0		10	9	18		6	7	24
12	20		0	6	9		8	3	0		10	4	6		6	2	3
12	40		0	4	6		8	0	0		9	10	24		5	8	12
13	0		0	2	3		7	9	0		9	5	12		5	2	21
13	20	Venus	20	0	0		7	6	0		9	0	0		4	9	0
13	40		19	6	0		7	3	0		8	6	18		4	3	9
14	0		19	0	0		7	0	0		8	1	6		3	9	18
14	20		18	6	0		6	9	0		7	7	24		3	3	27
14	40		18	0	0		6	6	0		7	2	12		2	10	6
15	0		17	6	0		6	3	0		6	9	0		2	4	15
15	20		17	0	0		6	0	0		6	3	18		1	10	24
15	40		16	6	0		5	9	0		5	10	6		1	5	3
16	0		16	0	0		5	6	0		5	4	24		0	11	12
16	20		15	6	0		5	3	0		4	11	12		0	5	21
16	40		15	0	0		5	0	0		4	6	0	Mercur.	17	0	0
17	0		14	6	0		4	9	0		4	0	18		16	6	27
17	20		14	0	0		4	6	0		3	7	6		16	1	24
17	40		13	6	0		4	3	0		3	1	24		15	8	21
18	0		13	0	0		4	0	0		2	8	12		15	3	18
18	20		12	6	0		3	9	0		2	3	0		14	10	15
18	40		12	0	0		3	6	0		1	9	18		14	5	12
19	0		11	6	0		3	3	0		1	4	6		14	0	9

Balance of Vimṣottari Dasa—contd.

Long. of Moon	Moon in Meṣa, Siṃha, Dhanus				Moon in Vṛṣa, Kanyā, Makara				Moon in Mithuna, Tula, Kumbha				Moon in Karkaṭa Vṛścika, Mina			
° ′		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
19 0	VENUS	11	6	0	MOON	3	3	0	RAHU	1	4	6	MERC.	14	0	9
19 20		11	0	0		3	0	0		0	10	24		13	7	6
19 40		10	6	0		2	9	0		0	5	12		13	2	3
20 0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20 20		9	6	0		2	3	0		15	7	6		12	3	27
20 40		9	0	0		2	0	0		15	2	12		11	10	24
21 0		8	6	0		1	9	0		14	9	18		11	5	21
21 20		8	0	0		1	6	0		14	4	24		11	0	18
21 40		7	6	0		1	3	0		14	0	0		10	7	15
22 0		7	0	0		1	0	0		13	7	6		10	2	12
22 20		6	6	0		0	9	0		13	2	12		9	9	9
22 40		6	0	0		0	6	0		12	9	18		9	4	6
23 0		5	6	0		0	3	0		12	4	24		8	11	3
2. 20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23 40		4	6	0		6	9	27		11	7	6		8	0	27
24 0		4	0	0		6	7	24		11	2	12		7	7	24
24 20		3	6	0		6	5	21		10	9	18		7	2	21
24 40		3	0	0		6	3	18		10	4	24		6	9	18
25 0		2	6	0		6	1	15		10	0	0		6	4	15
25 20		2	0	0		5	11	12		9	7	6		5	11	12
25 40		1	6	0		5	9	9		9	2	12		5	6	9
26 0		1	0	0		5	7	6		8	9	18		5	1	6
26 20		0	6	0		5	5	3		8	4	24		4	8	3
26 40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27 0		5	10	6		5	0	27		7	7	6		3	9	27
27 20		5	8	12		4	10	24		7	2	12		3	4	24
27 40		5	6	18		4	8	21		6	9	18		2	11	21
28 0		5	4	24		4	6	18		6	4	24		2	6	18
28 20		5	3	0		4	4	15		6	0	0		2	1	15
28 40		5	1	6		4	2	12		5	7	6		1	8	12
29 0		4	11	12		4	0	9		5	2	12		1	3	9
29 20		4	9	18		3	10	6		4	9	18		0	10	6
29 40		4	7	24		3	8	3		4	4	24		0	5	3
30 0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7*y*)		Venus (20*y*)		Sun (6*y*)		Moon (10*y*)		Mars (7*y*)		Rāhu (18*y*)		Jupiter (16*y*)		Saturn (19*y*)		Merc. (17*y*)		
′	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	*m*	*d*	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

VIMSOTTARI DASA AND ANTARDASA

DASA

Antardaśā	Sun (Ravi)—6						Moon (Chandra)—10						Mars (Mangala)—7					
	Sub Periods			Total			Sub Periods			Total			Sub Periods			Total		
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d
Sun	0	3	18	0	3	18	—			—			—			—		
Moon	0	6	0	0	9	18	0	10	0	0	10	0	—			—		
Mars	0	4	6	1	1	24	0	7	0	1	5	0	0	4	27	0	4	27
Rahu	0	10	24	2	0	18	1	6	0	2	11	0	1	0	18	1	5	15
Jupiter	0	9	18	2	10	6	1	4	0	4	3	0	0	11	6	2	4	21
Saturn	0	11	12	3	9	18	1	7	0	5	10	0	1	1	9	3	6	0
Mercury	0	10	6	4	7	24	1	5	0	7	3	0	0	11	27	4	5	27
Ketu	0	4	6	5	0	0	0	7	0	7	10	0	0	4	27	4	10	24
Venus	1	0	0	6	0	0	1	8	0	9	6	0	1	2	0	6	0	24
Sun	—			—			0	6	0	10	0	0	0	4	6	6	5	0
Moon	—			—			—			—			0	7	0	7	0	0

DASA

Antardaśā	Rahu—18						Jupiter (Brihaspati)—16						Saturn (Sani)—19					
	Sub Periods			Total			Sub Periods			Total			Sub Periods			Total		
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d
Rahu	2	8	12	2	8	12	—			—			—			—		
Jupiter	2	4	24	5	1	6	2	1	18	2	1	18	—			—		
Saturn	2	10	6	7	11	12	2	6	12	4	8	0	3	0	3	3	0	3
Mercury	2	6	18	10	6	0	2	3	6	6	11	6	2	8	9	5	8	12
Ketu	1	0	18	11	6	18	0	11	6	7	10	12	1	1	9	6	9	21
Venus	3	0	0	14	6	18	2	8	0	10	6	12	3	2	0	9	11	21
Sun	0	10	24	15	5	12	0	9	18	11	4	0	0	11	12	10	11	3
Moon	1	6	0	16	11	12	1	4	0	12	8	0	1	7	0	12	6	3
Mars	1	0	18	18	0	0	0	11	6	13	7	6	1	1	9	13	7	12
Rahu	—			—			2	4	24	16	0	0	2	10	6	16	5	18
Jupiter	—			—			—			—			2	6	12	19	0	0

DASA

Antardaśā	Mercury (Budha)—17						Ketu—7						Venus (Sukra)—20					
	Sub Periods			Total			Sub Periods			Total			Sub Periods			Total		
	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d	y	m	d
Mercury	2	4	27	2	4	27	—			—			—			—		
Ketu	0	11	27	3	4	24	0	4	27	0	4	27	—			—		
Venus	2	10	0	6	2	24	1	2	0	1	6	27	3	4	0	3	4	0
Sun	0	10	6	7	1	0	0	4	6	1	11	3	1	0	0	4	4	0
Moon	1	5	0	8	6	0	0	7	0	2	6	3	1	8	0	6	0	0
Mars	0	11	27	9	5	27	0	4	27	2	11	0	1	2	0	7	2	0
Rahu	2	6	18	12	0	15	1	0	18	3	11	18	3	0	0	10	2	0
Jupiter	2	3	6	14	3	21	0	11	6	4	10	24	2	8	0	12	10	0
Saturn	2	8	9	17	0	0	1	1	9	6	0	3	3	2	0	16	0	0
Mercury	—			—			0	11	27	7	0	0	2	10	0	18	10	0
Ketu	—			—			—			—			1	2	0	20	0	0

Solar Return or *Varṣapraveś*

The moment in each year when the *nirayaṇa* or sidereal longitude of the Sun becomes equal to the longitude of Sun at the time of birth of the native, is the moment of Solar return or Varsapravesh.

Method of calculation :—Write down the day of week at birth (0 for Saturday, 1 for Sunday, etc.) and with it write the birth time reckoned from 6ʰ A.M. or 0ʰ Midnight or in any other system of time reckoning. Take from the following table the figures given against the age of the person (completed number of years) and add to the above. The result gives the day of week and the time of Varṣapravesh. The English date for the day of week so obtained will be the same as the date of birth or will be adjacent to it.

Year	*d*	*h*	*m*	Year	*d*	*h*	*m*	Year	*d*	*h*	*m*
1	1	6	9·2	41	2	12	15·7	81	3	18	22·1
2	2	12	18·3	42	3	18	24·8	82	5	0	31·3
3	3	18	27·5	43	5	0	34·0	83	6	6	40·5
4	5	0	36·6	44	6	6	43·1	84	0	12	49·6
5	6	6	45·8	45	0	12	52·3	85	1	18	58·8
6	0	12	55·0	46	1	19	1·5	86	3	1	8·0
7	1	19	4·1	47	3	1	10·6	87	4	7	17·1
8	3	1	13·3	48	4	7	19·8	88	5	13	26·3
9	4	7	22·5	49	5	13	29·0	89	6	19	35·4
10	5	13	31·6	50	6	19	38·1	90	1	1	44·6
11	6	19	40·8	51	1	1	47·3	91	2	7	53·8
12	1	1	49·9	52	2	7	56·4	92	3	14	2·9
13	2	7	59·1	53	3	14	5·6	93	4	20	12·1
14	3	14	8·3	54	4	20	14·8	94	6	2	21·3
15	4	20	17·4	55	6	2	23·9	95	0	8	30·4
16	6	2	26·6	56	0	8	33·1	96	1	14	39·6
17	0	8	35·8	57	1	14	42·3	97	2	20	48·7
18	1	14	44·9	58	2	20	51·4	98	4	2	57·9
19	2	20	54·1	59	4	3	0·6	99	5	9	7·1
20	4	3	3·2	60	5	9	9·7	100	6	15	16·2
21	5	9	12·4	61	6	15	18·9	101	0	21	25·4
22	6	15	21·6	62	0	21	28·1	102	2	3	34·5
23	0	21	30·7	63	2	3	37·2	103	3	9	43·7
24	2	3	39·9	64	3	9	46·4	104	4	15	52·8
25	3	9	49·1	65	4	15	55·6	105	5	22	2·0
26	4	15	58·2	66	5	22	4·7	106	0	4	11·2
27	5	22	7·4	67	0	4	13·9	107	1	10	20·3
28	0	4	16·5	68	1	10	23·0	108	2	16	29·5
29	1	10	25·7	69	2	16	32·2	109	3	22	38·7
30	2	16	34·9	70	3	22	41·4	110	5	4	47·8
31	3	22	44·0	71	5	4	50·5	111	6	10	57·0
32	5	4	53·2	72	6	10	59·7	112	0	17	6·1
33	6	11	2·4	73	0	17	8·9	113	1	23	15·3
34	0	17	11·5	74	1	23	18·0	114	3	5	24·5
35	1	23	20·7	75	3	5	27·2	115	4	11	33·6
36	3	5	29·8	76	4	11	36·3	116	5	17	42·8
37	4	11	39·0	77	5	17	45·5	117	6	23	52·0
38	5	17	48·2	78	6	23	54·7	118	1	6	1·1
39	6	23	57·3	79	1	6	3·8	119	2	12	10·3
40	1	6	6·5	80	2	12	13·0	120	3	18	19·4

N. B.—The result given by the above table may differ by a few minutes from that obtained from equality of longitudes of the Sun at the two epochs, this being due to the perturbations of Sun's longitude caused by the planets.

Proportional Logarithms for finding Planets' places

Min.	DEGREES OF HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1.3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1.3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1.0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7.
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1.0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1·6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1·6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1·6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0.9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1·5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1·5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1·5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1·5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1·5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1·5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1·4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1·4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1·4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1·4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3875	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1·0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

Proportional Logarithms—contd.

Min.	DEGREES OR HOURS											Min.
	13	14	15	16	17	18.	19	20	21	22	23	
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1806	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1049	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

Rule:—Add proportional log. of planet's daily motion to log of time from 5-30 A.M., I. S. T. and the sum will be the log of the movement required. Add this movement to the given position of planet if the time be after 5-30 A.M., but subtract if before, and the result will be the planent's true place at the given moment. (If retrograde subtract for add).

Example :—Required longitude of Moon on 13th April 1985 at 9-05 P.M. I.S.T. Time from 5-30 A.M. (13th) is 15*h* 35*m*, log. of which = 0·1875. Moon's daily motion is 12°39′, its log = 0·2781. Sum of these two = 0·4656 which is log of 8° 13′, the required movement. Hence the required longitude o Moon is 9s 9° 00′ + 8° 13′ = 9s 17° 13′, *i.e. Makara* 17°13.

Prop. Logarithms for finding Planets' Places—Table II

Log. of time interval from the given epoch.

Time (I.S.T.)	For all planets except Mercury & Moon			For Mercury & Moon	
	Given date	Second day	Next given date	Given date	Next day
h m					
0 00 A.M.		0·4141	0·0529		0·1130
0 30		·4025	·0478		·1015
1 00		·3912	·0428		·0902
1 30		·3802	·0378		0792
2 00		·3695	·0329		·0685
2 30		·3590	·0280		·0580
3 00		·3488	·0232		·0478
3 30		·3388	·0185		·0378
4 00		·3291	·0138		·0280
4 30		·3195	·0091		·0185
5 00 A.M.		0·3102	0·0045		0·0091
5 30	∝	·3010	0·0000	∝	0·0000
6 00	1·9823	·2921		1·6812	
6 30	1·6812	·2833		1·3802	
7 00	1·5051	·2747		1·2041	
7 30	1·3802	·2663		1·0792	
8 00	1·2833	·2580		0·9823	
8 30	1·2041	·2499		·9031	
9 00	1·1372	·2419		·8361	
9 30	1·0792	·2341		·7781	
10 00 A.M.	1·0280	0·2264		0·7270	
10 30	0·9823	·2188		·6812	
11 00	·9409	·2114		·6398	
11 30	·9031	·2041		·6021	
12 00 (noon)	·8683	·1969		·5673	
12 30 P.M.	·8361	·1899		·5351	
1 00	·8062	·1829		·5051	
1 30	·7781	·1761		·4771	
2 00	·7518	·1694		·4508	
2 30	·7270	·1627		·4260	
3 00 P.M.	0·7035	0·1562		0·4025	
3 30	·6812	·1498		·3802	
4 00	·6601	·1434		·3590	
4 30	·6398	·1372		·3388	
5 00	·6205	·1310		·3195	
5 30	·6021	·1249		·3010	
6 00	·5843	·1189		·2833	
6 30	·5673	·1130		·2663	
7 00	·5509	·1072		·2499	
7 30	·5351	·1015		·2341	
8 00 P.M.	0·5199	0·0958		0·2188	
8 30	·5051	·0902		·2041	
9 00	·4909	·0846		1899	
9 30	·4771	·0792		·1761	
10 00	·4638	·0738		·1627	
10 30	·4508	·0685		·1498	
11 00	·4382	·0632		·1372	
11 30	·4260	·0580		·1249	
12 00 (midnight)	0·4141	0.0529		0·1130	

Rule:—Prop. Log. of time from the above Table II is to be added to log. of planet's 2 days' or 1 day's motion as the case may be from Table I, and the result will be the log. (Tab. I) of planet's required movement up to the moment from the previous given epoch.

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INDIAN EPHEMERIS
OF
PLANETS' POSITIONS

According to the Nirayana or Sidereal System

FOR 1986 A.D.

ASTRO-RESEARCH BUREAU
CALCUTTA

FESTIVALS AND ANNIVERSARIES IN 1986

New Year's Day	Wed. Jan. 1
Makarādi Snāna	Tue. Jan. 14
Pongal & Tai Pongal	Tue. Jan. 14
Guru Govind Singh Birthday	Fri. Jan. 17
Netaji's Birthday	Thu Jan. 23
Republic Day	Sun. Jan 26
Śri Pañcami	Thu. Feb. 13
Guru Ravi Das's Birthday	Mon. Feb. 24
Mahā Śivarātri	Sat. Mar. 8
Indian N. Y. Day	Sat. Mar. 22
Dolayatra	Wed. Mar. 26
Holi	Wed. Mar. 26
Good Friday	Fri. Mar. 28
Chaitra Suklādi	Thu. Apr. 10
Vaisākhi (Punjab)	Sun. Apr. 13
Meṣādi (Tamilnadu)	Mon. Apr. 14
Vaiśākhādi (Beng.)	Tue. Apr. 15
Rāmanavami	Fri. Apr. 18
Mahāvira Jayanti	Tue. Apr. 22
1st day of Ramadan	Sun. May 11
Buddha Purṇimā	Fri May 23
Idul-fitr	Mon. June 9
Rathayātrā	Wed. July 9
Independence Day	Fri. Aug. 1
Idu'z-zuha (Bakrid)	Sun. Aug.
Jhulana Pūrnima	Tue. Aug.
Parsi N.Y. (1356)	Mon. Aug. 2
Kṛṣṇa Janmāṣṭamī	Wed. Aug. 2
Ganeśa Caturthi	Sun. Sept.
Muharram	Mon. Sept. 1
Onam day	Mon. Sept.
Gandhiji's Birthday	Thu. Oct.
Mahālayā	Fri. Oct.
Jewish N.Y. (5747)	Sat. Oct.
Durgā Pujā	Fri.-Sun. Oct. 10-1
Dussehra (Vijaya Dasami)	Sun. Oct. 1
Lakṣmī Pūjā	Fri. Oct. 1
Kāli Pūjā	Sat. Nov.
Dīpāvali (*Diwali*)	Sat. Nov.
Bhrātṛ Dvitīyā	Mon. Nov.
Miladun Nabi	Sat. Nov. 1
Rāsa Pūrṇimā	Sun. Nov. 1
Guru Nanak's Birthday	Sun. Nov. 1
Guru Tegh Bahadur's Martyrdom day	Fri. Dec.
Christmas Day	Thu. Dec. 2

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INDIAN EPHEMERIS

OF

PLANETS' POSITIONS

ACCORDING TO THE 'NIRAYANA' OR SIDEREAL SYSTEM

FOR 1986 A.D.

Saka Era 1907-1908, Bengali San 1392-93, Saṁvat 2042-43

Indian Standard Time or the time for the Central Meridian of India (5*h* 30*m* or 82½°E. Long.) observed throughout except where otherwise stated. This time may be converted into G.M.T. by subtraction of 5*h* 30*m*.

(Fortyeighth Issue)

NIRMAL CHANDRA LAHIRI, M.A.
Gaṇitācārya, Gaṇitakalānidhi

Published by
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PREFACE

(For 1980 Issue)

This annual astronomical ephemeris being first published for the year 1939 has stepped into the 42nd year of publication with the present issue for 1980. During these years many changes and improvements have been introduced in this publication and many suggestions received from our learned readers have been implemented.

The basis of the *Nirayana* Zodiac as is being used from the issue for 1948 is the adoption of the year 285 A.D. or 207 Saka as the zero *ayanamsa* year when both the *Sayana* and *Nirayana* zodiacs coincided. The initial point of this *nirayana* or sidereal zodiac was the same as the equinoctial point (*viz.*, the First Point of *Aries*) of the vernal equinox day of 285 A.D., the mean equinox of the year occurring on Sunday March 22, 21*h* 27*m* I.S.T. At that time both the *sayana* and the *nirayana* longitudes of the star *Citrā* (Spica) were the same as 180° 00′ 03″ and the longitude of Mean Moon was 351°·67 and of Mean Sun 360°·00. It was thus a mean new-moon day also. Due to proper motion of the star the *nirayana* longitude of Spica has however diminished by 65″ during the period of 1695 years from 285 A.D. and now 179° 58′ 58″ according to the above ayanamsa system.

The Indian Astronomical Ephemeris of the Government of India has adopted, on the basis of the recommendations of the Calendar Reform Committee, a value of ayanamsa which is less by only 5″·8 than the above. This revised value has been adopted from the year 1960 for the sake of uniformity.

17, Brindaban Mullick 1st Lane,
Calcutta-700009
26 September, 1979
(*4 Asvina, 1901 Saka*)

N. C. Lahiri

This 48th edition of Lahiri's *Indian Ephemeris* for 1986 follows the same arrangement as in the previous issue.

1006585

PUBLISHER.
13th October, 1985

Transliteration of Sanskrit Alphabet

Vowels— a ā, i ī, u ū, ṛ l, e ai, o au.
Consonants—k kh g gh ṅ, c ch j jh ñ, ṭ th ḍ ḍh ṇ
t th d dh n, p ph b bh m, y r l v, ś ṣ s h, ṃ ḥ

GREEK LETTERS

Α	α	Alpha	Η	η	Eta	Ν	ν	Nu	Τ	τ	Tau
Β	β	Beta	Θ	θ	Theta	Ξ	ξ	Xi	Υ	υ	Upsilon
Γ	γ	Gamma	Ι	ι	Iota	Ο	ο	Omicron	Φ	φ	Phi
Δ	δ	Delta	Κ	κ	Kappa	Π	π	Pi	Χ	χ	Chi
Ε	ε	Epsilon	Λ	λ	Lambda	Ρ	ρ	Rho	Ψ	ψ	Psi
Ζ	ζ	Zeta	Μ	μ	Mu	Σ	σ ς	Sigma	Ω	ω	Omega

EXPLANATION

In the European or modern system of astronomy, the celestial longitudes of planets and stars are measured as usual along the ecliptic starting from the First Point of Aries or the Vernal equinoctial point, i.e. the ascending node of the ecliptic on the equator. This initial point does not occupy any fixed position among the stars; it always moves backward i.e. in the western direction in the starry heavens due to precession of the equinoxes with an annual motion of about 50″3, completing the circle in about 26000 years. The longitude measured in this system is called the Tropical or *Sāyana* longitude. The twelve signs of the zodiac of this system, viz. Aries, Taurus, etc. as usual, cover equal spans of 30° each starting from the above V.E. point and as such these divisions are called Tropical signs or *Sāyana Rāśis*.

In the Indian *Nirayana* system, the longitudes of celestial objects are measured from a different point occupying a permanent position on the ecliptic fixed among the stars. The distance or longitude of this fixed initial point from the above V.E. point is called *Ayanāṁśa*. The longitude measured from this initial point is called *Nirayaṇa* or Sidereal longitude. The divisions of the twelve *Rāśis* (Indian signs) such as *Meṣa* (corresponding to Aries) etc., and the 27 *Nakṣatras* also start from the above fixed initial point in this system. The Indian *Rāśis* and the European signs do not thus cover the same spans of 30 degrees over the ecliptic. The nirayana longitudes of stars being nearly invariable, the Indian signs always contain the same star groups in the divisions. The zodiacs of the above two systems coincided in 285 A.D.

Details of the Ephemeris

Nirayaṇa or sidereal longitudes (geocentric apparent) of the Sun, Moon and Planets have been given daily for 0*h* Universal Time *i.e.*, 0*h* G.M.T (Greenwich mean midnight) or 5*h* 30*m* A.M. Indian Standard Time (I.S.T.). Latitudes and declinations as also heliocentric longitudes and right ascensions are however given for a slightly earlier epoch 0*h* E.T. As a result of irregular rotation of the earth the Greenwich time determined from the earth's rotation has been found inconvenient for calculation of planets' positions, for which Ephemeris Time or E.T. is now used. The mean elements of planets have accordingly been given in this book for 0*h* E.T. and for convenience of users the daily positions of planets have been given for 0*h* G.M.T. or U.T. which epoch occurs 56 secs. after 0*h* E.T. in 1986.

The *Nirayaṇa* longitude as given in the Ephemeris is obtainable by subtraction of *Ayanāṁśa* from the tropical or *Sāyana* longitude given in western ephemerides The first figure in the given nirayana longitude denotes the sign (indicated by the symbol ^{s}) of the *Nirayaṇa* or fixed zodiac, *e.g.*, 0 means that the planet is in Mesa (Aries), 1 — Vṛṣa (Taurus), 2 — Mithuna (Gemini), etc.

Sidereal Time is for 12*h* noon local mean time. It is exact for 82½° East longitude, but is applicable for the whole of India without much modification *for local mean noon*. Small corrections for a few places have been given on pages 86-88. The L.M.T. should therefore be used in determining the sidereal time of any moment, but in finding the longitudes of planets etc., the standard time should be made use of.

Apparent Noon is the local mean time of Sun's meridian passage *viz.* the mid-day. The equation of time in the sense of correction applied to the local mean time to obtain the local apparent time, may be deduced as follows : Equation of time = 12*h* − apparent noon.

Meridian passages of the Moon and planets given are in local mean time calculated for the central meridian of India, *viz.*, for 82½° East longitude. With slight correction these may be used in *local mean time* for all other places. M. Pass. of a planet (other than the moon) requires almost no correction for places in India. For the Moon the given time of meridian passage should be diminished by 1 min. for Calcutta and eastern India and increased by 1 min. for Delhi, Bombay and western India. For further west it should be increasd according to the daily variation of the M. Pass. time in proportion to the longitude west of India's central meridian.

The *Tithi* and *Nakshatra* (of Moon) as given in the daily Ephemeris are those as are current at 5-30 A.M. I.S.T. on the day.

The following prefixes and suffixes have been added to the longitude of planets in the daily Ephemeris :—

n, *n* = the planet changes the *nakshatra* by direct (n) or retrograde (*n*) motion the number of the *nakshatra* division, *i.e.*, the lunar mansion in which the planet is situated on the first day of the month has been shown at the top of the column of longitudes. In case of *Rahu*, the first figure represents the *nakshatra* of *Rahu* and the second figure that of *Ketu*.
R, *R* = the planet becomes retrograde (R), or has already become so (*R*).
D = the planet becomes direct.
s, *s* = the planet sets(s) heliacally, or has already set(*s*).
r = the planet rises heliacally.
☌, ☍ = the planet is in conjunction with (☌) or in opposition to (☍) the Sun.
e = the inferior planet has the greatest elongation from the Sun on that day.

The timings of Sunrise and Sunset for Calcutta (22°N35′) as given in this book in I.S.T., when converted into the local mean time by the addition of 23*m* 30*s* may be used as L.M.T. for all place on the same latitude. The timings relate to visibility of the Sun's upper limb on the horizon where time-corrections for refraction and Sun's semi-diameter have been included. The tables given on pages 74-75, on the other hand, have been prepared on the local time basis and also relating to the coincidence (astronomical or true) of the centre of the Sun with the horizon, where no corrections for atmospheric refraction or semidiameter have been considered. As a result of refraction, the centre of the Sun becomes visible on the horizon about 2*m* 20*s* before the calculated time of Sunrise and also remains so after the time of Sunset. For visibility of the Sun's upper limb the above correction is about 3*m* 30*s*. The amount of horizontal refraction is taken as 31′ and the semi-diameter as 16′, so that the centre of the Sun is actually 47′ below the horizon at such times of rising and setting.

As in the case of the Sun and the Moon, the Lunar Node has also got the mean position as well as the true position, the greatest difference between the two being about 1¾ degrees. In view of the fact that we are concerned only with the true or apparent position in case of planets, the position of *True Rāhu* (excluding certain short period terms of correction) has been given in the daily ephemeris, and for facility of comparison the mean position has been given on page 33. Motion of True Rahu is not uniform. Sometimes it becomes direct even.

The dates of the National Calendar of India have been shown daily, the months of which have got fixed number of days as follows :—

Chaitra—30 days (31 in a leap-year), Vaisakha—31, Jyaistha—31, Asadha—31, Sravana—31, Bhadra—31, Asvina—30, Kartika—30, Agrahayana—30, Pausa—30, Magha—30 and Phalguna—30 days.

The given times (I.S.T.) of phases of the moon, transits of planets, timings of tithi, nakshatra and yoga, and of Aspects, etc. when reduced by subtraction of 5*h* 30*m* would give the G.M.T. of the phenomena concerned. When the 'Correction to get Zonal Standard Time from I.S.T.' as given on page 88 is applied, the timings of the phenomena are obtained in the Standard time of the country concerned. This local standard time is known in some countries simply as local time.

From 1st September, 1942 to 14th October, 1945, the Indian standard time was advanced by one hour all over India including modern Bangladesh and Pakistan for purposes of day-light saving during the war period and was thus 6*h* 30*m* ahead of G.M.T. Any recorded time of this period should therefore be reduced by 1 hour to get I.S.T.

Calcutta and many places in Bengal and some places of the adjacent provinces used to maintain local time instead of the standard time. The changes of these timings during the war period are stated below :—

			Reduction to I. S. T.
In Calcutta	before 1st Oct., 1941	Calcutta time	—0*h* 23*m*
In whole of Bengal	from 1-10-41 to 14-5-42	Bengal time	—1*h* 0*m*
„	„ 15-5-42 to 31-8-42	I. S. T.	0*h* 0*m*
„	„ 1-9-42 to 31-8-47	Bengal time	—1*h* 0*m*
In West Bengal	since 1st September, 1947	I. S. T.	0*h* 0*m*
Assam from 1-11-41 to 14-5-42 and again from 1-9-42 to 14-10-45, and Bihar from 1-12-41 to 14-5-42 and again from 1-9-42 to 14-10-45 observed Bengal time.			—1*h* 0*m*

East Pakistan observed Bengal time for civil purposes and Pakistan standard time, same as I.S.T., for Railway and Postal work, etc., up to 30-9-51, From 1-10-51 Bangladesh (former East Pakistan) standard time is 30*m* more than I.S.T. and Pakistan (former West Pakistan) standard time is 30*m* less than I.S.T.

SYMBOLS

☉	—Sun	*Ravi, Sūrya*
☽	—Moon	*Candra*
☿	—Mercury	*Budha*
♀	—Venus	*Śukra, Bhṛgu*
♂	—Mars	*Maṅgala, Kuja*
♃	—Jupiter	*Bṛhaspati, Guru*
♄	—Saturn	*Śani*
♅	—Uranus or Herschel	*Indra, Prajāpati*
♆	—Neptune	*Varuṇa*
♇	—Pluto	*Rudra, Yama*
☊	—Ascending Node or Dragon's head	*Rāhu*
☋	—D. Node, Dragon's tail	*Ketu*
⊕	—Earth	*Pṛthivī*

♈	—Aries	0	*Meṣa*
♉	—Taurus	1	*Vṛṣa*
♊	—Gemini	2	*Mithuna*
♋	—Cancer	3	*Karkaṭa*
♌	—Leo	4	*Siṁha*
♍	—Virgo	5	*Kanyā*
♎	—Libra	6	*Tulā*
♏	—Scorpio	7	*Vṛścika*
♐	—Sagittarius	8	*Dhanus*
♑	—Capricorn	9	*Makara*
♒	—Aquarius	10	*Kumbha*
♓	—Pisces	11	*Mīna*

CALENDARS OF INDIA

The beginning dates of the months of different calendars of India (both solar and lunar or luni-solar) during 1986 are given below.

Month	National Calendar	Bengal and Assam	Punjab and Orissa	Tamil Nadu	Kerala	Lunar (Mukhya) *Sukla*	Lunar (Gauna) *Vadi*
Magha	Jan. 21	Jan. 15	14	14	14	Feb. 9	Jan. 26
Phalguna	Feb. 20	Feb 13	12	13	13	Mar. 11	Feb. 25
Chaitra.	Mar. 22*	Mar. 15	14	15	15	Apr. 10*	Mar. 27
Vaisakha	Apr. 21	Apr. 15*	13*	14*	14	May 9	Apr. 25
Jyaistha	May 22	May 16	14	15	15	June 8	May 24
Asadha	June 22	June 16	15	15	15	July 8	June 23
Sravana	July 23	July 17	16	16	17	Aug. 6	July 22
Bhadra	Aug. 23	Aug. 18	16	17	17*	Sept. 5	Aug. 20
Asvina	Sept. 23	Sept. 18	16	17	17	Oct. 4	Sept. 19*
Kartika	Oct. 23	Oct. 18	17	17	18	Nov. 3*	Oct. 18
Agrahayana (Marga.)	Nov. 22	Nov. 17	16	16	17	Dec. 2	Nov. 17
Pausa	Dec. 22	Dec. 17	15	16	16	Jan. 1	Dec. 17
Magha	Jan. 21	Jan. 15	14	14	15	Jan. 30	Jan. 16

*Year beginning.

N.B.—The names of the Tamilian and Keralian months are different.

Beginning of Eras in 1986

National Calendar	1908	Saka begins on	March 22.
Vikram Samvat	2043	begins on	April 10 (Caitrādi).
„ „	2043	„	November 3 (Kārtikādi—Gujarat).
„ „	2043	„	April 13 (Solar—Punjab).
Śaka Era	1908	„	April 10 (Lunar) or Apr. 13-15 (Solar)
Bengali San	1393	„	April 15
Fusli San	1394	„	September 19 (North India).
Kollam era	1162	„	August 17 (Kerala)
Hejira (Mohammedan)	1407	„	September 6.
Buddha Nirvāṇa	2530	„	May 23.
Mahāvīra Nirvāṇa	2513	„	November 3.
Year of Julian period	6699	„	January 14.
Kaliyuga Era	5087	„	April 16.
Bārhaspatya Varṣa (Jovian year)	14 Vikrama	begins on	Oct. 21 (North India).
„	60 Kṣaya (Akṣaya)	„	April 10 or Apr. 14 (South India).
Vedāṅga Jyotiṣa year	2 Parivatsara	„	February 9

Elements of the Planetary Orbits for 0h E.T. or 5-29·1 a.m. I.S.T on 1st January, 1986

(On Sidereal or *Nirayana* basis)

	Mean Long.	Perigee or Perihelion	Ascending Node	Inclinat. of Orbit	2*e* in deg. (Equ. of centre)	Annual parallax (mean)
	s ° ′ ″	s ° ′ ″	s ° ′ ″	° ′ ″	° ′ ″	° ′
Sun	8 16 41 49	8 19 02 18	...	...	1 54 55	...
Moon	4 17 09 06	7 00 01 47	0 12 09 41	5 08 43	6 17 28	...
Mercury	6 02 13 08	1 23 34 35	0 24 30 15	7 00 16	23 33 49	22 46
Venus	8 05 37 42	3 17 42 46	1 22 53 33	3 23 40	0 46 37	46 20
Mars	5 21 56 53	10 12 08 24	0 25 47 18	1 50 59	10 42 07	41 01
Jupiter	10 05 36 29	11 20 26 42	2 16 39 05	1 18 14	5 33 18	11 05
Saturn	7 05 07 19	2 09 07 18	2 29 52 48	2 29 21	6 22 14	6 01
Uranus	7 20 13 09	4 29 09 51	1 20 11 44	0 46 23	5 18 29	2 59
Neptune	8 09 53 56	0 24 17 29	3 17 57 55	1 46 16	1 01 55	1 54
Pluto	6 14 35 23	6 20 01 02	2 26 27 40	17 08 31	28 29 33	1 27

	Sidereal Period	Synodic period	Mean daily motion	Mean distance		Eccen. (= *e*)
				Astrono.	Miles	
	d	d	° ′ ″		(Lakhs)	
Moon	27·3216615	29·531	13 10 34·89	0·00257	2·39	·054900
Mercury	87·969256	115·878	4 05 32·42	0·38710	360	·205632
Venus	224·70080	583·921	1 36 07·67	0·72333	672	·006780
Earth	365·25636	...	0 59 08·19	1·00000	930	·016715
Mars	686·97982(1·9)	779·936	0 31 26·52	1·52369	1416	·093392
Jupiter	4332·589(11·86)	398·884	0 04 59·13	5·20256	4836	·048475
Saturn	10759·23 (29·46)	378·092	0 02 00·45	9·55475	8882	·055595
Uranus	30688·45 (84·02)	369·656	0 00 42·2[illegible]	19·21814	17865	·046322
Neptune	60181·3 (164·77)	367·487	0 00 21·53	30·10957	27989	·009002
Pluto	90737·2 (248·42)	366·733	0 00 14·28	39·51774	36735	·248644
Rāhu	6793·470(18·60)	346·620	−0 03 10·77	...	...	...
Mn's Perig.	3232·600 (8·85)	411·785	0 06 40·92	...	...	...

Ayanamsa : Jan. 1, 1986, Mean = 23° 39′ 40″·6, True = 23° 39′ 31″
1987, Mean = 23° 40′ 30″·8, True = 23° 40′ 27″

Precession rate : Per trop. year = 50″·2755, Per sid. year = 50″·2774

Obliquity of the ecliptic : Mean = 23° 26′ 28″·0, True = 23° 26′ 34″·9

Julian day number (Jan. 1, G.M Noon) = 244,6432 completed

KALIYUGA' day number (Jan. 1-2, Midnight) = 1857967 completed

Length of the tropical year = 365·2421935*d* = 365*d* 5*h* 48*m* 45*s*·5

" " " sidereal year = 365·2563628*d* = 365*d* 6*h* 9*m* 9*s*·7

Anomalistic year = 365·2596440*d*, Eclipse year = 346·620059*d*

Length of the lunar month = 29·5305888*d* = 29*d* 12*h* 44*m* 2*s*·9

Mean duration of *tithi* = 23*h* 37*m* 28*s*·096, of *nakshatra* = 24*h* 17*m* 9*s*·317

Anomalistic month = 27·5545500*d*, Nodical month = 27·2122207*d*

Rotation of the Earth in mean solar time = 23*h* 56*m* 4·100*s*

Sidereal day in mean solar time = 23*h* 56*m* 4·091*s*

Mean solar day in sidereal hours = 24*h* 3*m* 56·555*s*

Lunar day between the risings of moon = 24*h* 48*m* 45·838*s*

Long. of ecliptic's axis of rotation (A. Node) = 5^s 1° 4′ 30″

Invariable plane : A. Node = 2^s 23° 44′ 49″, Inclination = 1° 34′ 44″

Solar system moving towards : Long. 8^s 8°, Lat = 53° North, 12·4 m/s.

Plane of galaxy : A. Node = 8^s 6° 7′, Inclination = 60° 11′

Centre of our galaxy : Long. = 8^s 2°, Lat. = − 6°, Light years = 26000

Date	Sidereal Time (Noon)	र ⊙ स Longitude 20 nakṣatra	⊙ Decli.	च ☽ स Longitude	☽ Lat.	☽ Decli.	☽ M. Pas	Nakṣatr	Tithi	Ind. Dt.
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 W	18 42 29	8 16 36 26	23S03	4 11 24 51	4N28	13N48	3 48	10	20	11
2 Th	18 46 25	17 37 34	22 58	4 24 41 07	3 48	8 08	4 30	11	21	12
3 F	18 50 22	18 38 43	22 52	5 8 10 46	2 54	1N56	5 12	12	22	13
4 St	18 54 18	19 39 53	22 47	5 21 51 55	1 50	4S26	6 06	13	23	14
5 S	18 58 15	20 41 03	22 40	6 5 54 32	0N38	10 44	6 54	14	24	15
6 M	19 02 11	8 21 42 12	22 34	6 20 9 40	0S38	16 35	7 48	16	25	16
7 Tu	19 06 08	22 43 22	22 26	7 4 38 57	1 52	21 36	8 42	17	26	17
8 W	19 10 05	23 44 32	22 19	7 19 18 57	3 00	25 20	9 48	18	28	18
9 Th	19 14 01	24 45 42	22 11	8 4 04 07	3 50	27 21	10 48	19	29	19
10 F	19 17 58	n 25 46 52	22 02	8 18 47 05	4 36	27 26	11 54	20	30	20
11 St	19 21 54	8 26 48 02	21 53	9 3 19 00	4 58	25 38	12 54	21	1	21
12 S	19 25 51	27 49 11	21 44	9 17 34 57	5 00	22 13	13 54	22	2	22
13 M	19 29 47	28 50 21	21 34	10 1 26 55	4 44	17 37	14 42	23	3	23
14 Tu	19 33 44	8 29 51 29	21 24	10 14 54 51	4 13	12 17	15 42	24	4	24
15 W	19 37 40	9 0 52 36	21 13	10 27 52 35	3 30	6 35	16 12	25	5	25
16 Th	19 41 37	9 1 53 44	21 02	11 10 28 16	2 37	0S46	16 51	26	6	26
17 F	19 45 34	2 54 50	20 51	11 22 43 52	1 39	4N55	17 36	27	7	27
18 St	19 49 30	3 55 56	20 39	0 4 44 25	0S37	10 20	18 18	1	8	28
19 S	19 53 27	4 57 01	20 27	0 16 35 27	0N26	15 18	19 00	2	9	29
20 M	19 57 23	5 58 05	20 14	0 28 23 37	1 27	19 41	19 48	3	10	30
21 Tu	20 01 20	9 6 59 09	20 01	1 10 11 14	2 25	23 17	20 30	4	11	1
22 W	20 09 16	8 00 10	19 48	1 22 06 01	3 16	25 56	21 24	4	12	2
23 Th	20 09 13	n 9 1 12	19 34	2 4 10 59	4 00	27 25	22 18	5	13	3
24 F	20 13 09	10 2 13	19 20	2 16 28 52	4 33	27 35	23 12	6	14	4
25 St	20 17 06	11 3 13	19 05	2 29 01 19	4 53	26 21	—	7	14	5
26 S	20 21 03	9 12 4 11	18 51	3 11 48 48	5 00	23 45	0 04	8	15	6
27 M	20 24 59	13 5 09	18 35	3 24 50 38	4 51	19 53	0 54	9	16	7
28 Tu	20 28 56	14 6 06	18 20	4 8 05 22	4 26	14 59	1 42	10	17	8
29 W	20 32 52	15 7 03	18 04	4 21 21 13	3 46	9 19	2 30	11	19	9
30 Th	20 36 49	16 7 58	17 48	5 5 06 26	2 53	3N08	3 18	12	20	10
31 F	20 40 45	9 17 8 53	17S32	5 18 49 45	1N49	3S 5	4 04	13	21	11

Lunar Pauṣa (Sukla) begins on 10th, 17*h* 52*m*

Date	Appart. Noon L.M.T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set. (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 03 24	10 48	11 45	7 53	14 42	9 32	10 32	11 33	6 16 48	17 03 00
3	04 20	53	48	49	35	25	25	26	17 24	04 15
5	05 15	10 58	51	46	29	18	18	18	17 54	05 42
7	06 03	11 03	54	43	23	11	10	11	18 18	07 00
9	06 59	08	11 57	40	17	9 04	10 03	11 03	18 42	08 24
11	07 45	14	12 00	37	11	8 57	9 55	10 56	18 54	09 48
13	08 35	19	03	34	14 03	50	48	48	19 06	11 12
15	09 19	25	06	31	13 59	43	41	40	19 12	12 36
17	12 10 00	11 31	12 09	7 28	13 53	8 36	9 33	10 33	6 19 12	17 14 00
19	10 39	37	11	25	46	29	26	25	19 00	15 24
21	11 14	43	14	22	40	22	18	18	18 48	16 48
23	11 47	49	17	19	34	15	11	10	18 30	18 12
25	12 16	11 55	19	16	28	07	9 03	10 03	18 12	19 36
27	12 42	12 01	22	13	23	8 00	8 56	9 55	17 42	20 54
29	13 05	07	24	10	16	7 53	49	47	17 06	22 18
31	12 13 25	12 13	12 26	7 07	13 10	7 46	8 41	9 40	6 16 24	17 23 36

Sun enters : Makara (Sid. Capricorn) 14th, 8*h* 51*m*. Trop. Aquarius, 20th, 14*h* 16*m*

Last Quarter—3rd, 25*h* 17*m*.

New Moon—10th, 17*h* 52*m*.

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ বু	शु ♀ শু	म ♂ ম	बृ ♃ বৃ	श ♄ শ	हा: ♅ হা:	ने: ♆ নে:	रा ☊ রা
	18 nakṣ.	19 nakṣ.	15 nakṣ.	23 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	1/15n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	7n29 13	8n12 09s	6 16 55	9 24 36	7 11 30	7 25 50	8 9 56	0 13 09
2	8 0 40	13 24	17 31	24 49	11 36	25 54	9 58	13 04
3	2 07	14 40	18 08	25 01	11 43	25 57	10 00	13 02
4	3 35	15 55	18 45	25 14	11 49	26 01	10 02	13 01
5s	5 04	17 11	19 21	25 27	11 55	26 04	10 05	13 02
6	8 6 33	8 18 26	6n19 58	9 25 41	7 12 01	7 26 08	8 10 07	0 13 02
7	8 02	19 42	20 34	25 54	12 07	26 11	10 09	13 00
8	9 32	20 57	21 11	26 07	12 13	26 14	10 11	12 55
9	11 03	22 13	21 47	26 20	12 19	26 18	10 14	12 48
10	n 12 34	23 28	22 24	26 33	12 25	26 21	10 16	12 38
11	8 14 05	8 24 44	6 23 00	9 26 47	7 12 30	7 26 24	8 10 18	0 12 26
12s	15 37s	n 25 59	23 36	27 00	12 36	26 28	10 20	12 14
13	17 10	27 15	24 13	27 14	12 42	26 31	10 22	12 03
14	18 42	28 30	24 49	27 27	12 47	26 34	10 25	11 54
15	20 16	8 29 46	25 25	27 41	12 53	26 37	10 27	11 47
16	8 21 50	9 1 01	6 26 01	9 27 55	7 12 58	7 26 40	8 10 29	0 11 43
17	23 24	2 16	26 38	28 08	13 04	26 44	10 31	11 42
18	24 59	3 32	27 14	28 22	13 09	26 47	10 33	11 41
19s	n 26 34	4 47	27 50	28 36	13 15	26 50	10 35	11 41
20	28 10	6 03	28 26	28 50	13 20	26 53	10 37	11 40
21	8 29 46	9 7 18	6 29 02	9 29 03	7 13 25	7 26 56	8 10 39	0 11 37
22	9 1 23	8 34	6 29 38	29 17	13 30	26 59	10 41	11 32
23	3 01	n 9 49	7 0 14	29 31	13 35	27 02	10 44	11 24
24	4 39	11 04	0 50	29 45	13 40	27 05	10 46	11 13
25	6 18	12 20	1 25	9 29 59	13 45	27 08	10 48	11 00
26s	9 7 57	9 13 35	7 2 01	10 0 13	7 13 50	7 27 11	8 10 50	0 10 45
27	n 9 37	14 51	2 37	0 27	13 55	27 13	10 52	10 32
28	11 18	16 06	n 3 13	0 41	13 59	27 16	10 54	10 19
29	13 00	17 21	3 48	0 55	14 04	27 19	10 56	10 10
30	14 42	18 37	4 24	1 10	14 08	27 22	10 58	10 03
31	9 16 24	9 19 52	7 5 00	10 1 24	7 14 13	7 27 24	8 10 59	0 10 00

1st. Jan.: ♅ Lat. 0° S 03′, Decli. 23° S 05′ ♆ Lat. 1° N 04′, Decli. 22° S 20′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	0N17	22S58	0S20	23S39	1N02	14S01	0S48	16S07	1N48	19S23	6 13 15
3	0N02	23 21	25	23 35	01	14 24	48	15 59	48	25	13 18
5	0S13	23 39	29	23 29	00	14 47	48	51	49	27	13 20
7	0 27	23 53	34	23 20	1 00	15 10	48	43	49	29	13 23
9	0 41	24 02	38	23 08	0 59	15 32	48	35	49	31	13 25
11	0 53	24 06	42	22 53	58	15 53	48	26	49	33	13 27
13	1 05	24 05	46	22 35	58	16 14	48	18	49	35	13 29
15	1 16	23 59	50	22 14	57	16 35	48	09	49	37	13 31
17	1 27	23 47	0 54	21 51	0 56	16 55	0 48	15 00	1 50	19 38	6 13 33
19	1 36	23 30	0 58	21 25	55	17 15	48	14 51	50	40	13 34
21	1 44	23 07	1 01	20 56	54	17 34	48	42	50	41	13 36
23	1 51	22 38	04	20 25	53	17 53	48	33	50	43	13 37
25	1 56	22 03	08	19 52	52	18 12	48	24	50	44	13 38
27	2 01	21 23	10	19 16	51	18 29	48	15	50	46	13 39
29	2 04	20 36	13	18 38	50	18 47	48	14 05	51	47	13 40
31	2S05	19S14	1S16	17S58	0N49	19S04	0S49	13S56	1N51	19S48	6 13 41

1st: Rahu Decli. 13° N 48′ PL: M. Pass. h 7-59, Lat. 16° N 21′, Decli. 1° N 40′

First Quarter—17th, 27h 43m Full Moon—26th, 6h 01m.

Date	Sidereal Time (Noon)	र ⊙ वि Longitude	⊙ Decli.	च ☽ न्द्र Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakstra.	Tithi	Ind. Dt.
		22 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 St	20 44 42	9 18 09 48	17S15	6 2 40 29	0N39	9S34	4 48	14	22	12
2 S	20 48 38	19 10 41	16 58	6 16 38 23	0S35	15 28	5 42	15	23	13
3 M	20 52 35	20 11 34	16 40	7 0 43 15	1 47	20 36	6 42	16	24	14
4 Tu	20 56 32	21 12 25	16 23	7 14 54 29	2 53	24 35	7 42	17	25	15
5 W	21 00 28	22 13 16	16 05	7 29 10 30	3 49	27 04	8 42	18	26	16
6 Th	21 04 25	9n23 14 06	15 47	8 13 28 24	4 30	27 45	9 42	20	27	17
7 F	21 08 21	24 14 55	15 28	8 27 43 56	4 55	26 36	10 42	21	28	18
8 St	21 12 18	25 15 44	15 09	9 11 51 56	5 01	23 45	11 36	22	29	19
9 S	21 16 14	26 16 30	14 50	9 25 47ꝏ05	4 49	19 34	12 30	23	30	20
10 M	21 20 11	27 17 16	14 31	10 9 24 47	4 20	14 25	13 18	24	2	21
11 Tu	21 24 07	9 28 18 00	14 11	10 22 41 59	3 38	8 44	14 06	25	3	22
12 W	21 28 04	9 29 18 43	13 52	11 5 37 33	2 46	2S49	14 54	26	4	23
13 Th	21 32 01	10 0 19 24	13 32	11 18 12 17	1 46	3N03	15 30	27	4	24
14 F	21 35 57	1 20 04	13 12	0 0 28 47	0S43	8 42	16 12	1	5	25
15 St	21 39 54	2 20 42	12 51	0 12 30 54	0N21	13 54	16 54	1	6	26
16 S	21 43 50	10 3 21 18	12 31	0 24 23 32	1 23	18 3	17 42	2	7	27
17 M	21 47 47	4 21 53	12 10	1 6 12 01	2 22	22 26	18 24	3	8	28
18 Tu	21 51 44	5 22 26	11 49	1 18 01 51	3 14	25 24	19 12	4	9	29
19 W	21 55 40	n 6 22 56	11 28	1 29 58 22	3 59	27 16	20 12	5	10	30
20 Th	21 59 36	7 23 25	11 06	2 12 06 21	4 33	27 52	21 00	6	11	1
21 F	22 03 33	10 8 23 53	10 45	2 24 29 45	4 56	27 06	21 54	7	12	2
22 St	22 07 30	9 24 18	10 23	3 7 11 20	5 04	24 55	22 42	8	13	3
23 S	22 11 26	10 24 42	10 01	3 20 12 24	4 58	21 25	23 36	9	14	4
24 M	22 15 23	11 25 05	9 39	4 3 32ꝏ36	4 35	16 45	—	10	15	5
25 Tu	22 19 19	12 25 24	9 17	4 17 10 01	3 56	11 09	0 24	11	16	6
26 W	22 23 16	10 13 25 43	8 55	5 1 01 32	3 02	4N54	1 06	12	17	(
27 Th	22 27 12	14 26 00	8 32	5 15 03 19	1 57	1S39	2 06	13	18	8
28 F	22 31 09	10 15 26 15	8S10	5 29 11 29	0N44	8S12	2 48	14	19	9

Lunar Magha (Sukla) begins on 9th, 6*h* 25*m*

Date	Appart. Noon L. M. T.	☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set (Cal.) I.S.T.
		Local mean time of Meridian Passages								
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 13 33	12 16	12 27	7 05	13 07	7 42	8 37	9 36	6 16 06	17 24 12
3	13 48	23	30	7 02	13 01	35	30	28	15 18	25 30
5	14 00	29	32	6 59	12 55	28	22	21	14 24	26 48
7	14 09	35	34	56	49	20	15	13	13 30	28 00
9	14 14	41	36	53	43	13	07	9 06	12 30	29 12
11	14 16	47	38	50	37	7 06	8 00	8 58	11 24	30 24
13	14 15	52	39	47	31	6 58	7 52	50	10 12	31 36
15	14 11	12 58	41	44	25	51	45	43	09 00	32 42
17	12 14 04	13 03	12 43	6 41	12 19	6 43	7 37	8 35	6 07 36	17 33 48
19	13 55	07	44	38	13	36	29	27	06 18	34 48
21	13 42	11	46	35	07	28	22	20	04 48	35 48
23	13 27	15	47	32	12 01	21	14	12	03 24	36 48
25	13 09	17	49	29	11 55	13	7 07	8 05	01 48	37 48
27	12 49	17	50	26	49	06	6 59	7 57	6 00 12	38 42
28	12 12 39	13 17	12 51	6 24	11 46	6 02	6 55	7 53	5 59 24	17 39 12

Sun enters : Kumbha (Sid. Aquarius) 12th, 21*h* 50*m* Trop. Pisces 18th, 28*h* 28*m*

Last Quarter—2nd, 10*h* 11*m*.

New Moon—9th, 6*h* 25*m*

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	म ♂ म	बृ ♃ बृ	श ♄ श	हा: ♅ हा:	ने: ♆ ने:	रा ☊ रा
	22 nakṣ.	22 nakṣ.	17 nakṣ.	23 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	1/15n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	9 18◎03s	9 21 07s	7 5 35	10 1 38	7 14 17	7 27 27	8 11 01	0 9 59
2s	19 52	n 22 23	6 11	1 52	14 22	27 30	11 03	9 59
3	n 21 36	23 38	6 46	2 06	14 26	27 32	11 05	9 58
4	23 22	24 53	7 22	2 21	14 30	27 35	11 07	9 57
5	25 08	26 08	7 57	2 35	14 34	27 37	11 09	9 52
6	9 26 55	9 27 24	7 8 32	10 2 49	7 14 38	7 27 40	8 11 11	0 9 45
7	9 28 42	28 39	9 08	3 04	14 42	27 42	11 12	9 35
8	10 0 30	9 29 54	9 43	3 18	14 45	27 45	11 14	9 24
9s	2 18	10 1 09	10 18	3 32	14 50	27 47	11 16	9 11
10	4 07	2 25	10 53	3 47	14 53	27 49	11 18	9 00
11	10n 5 56	10 3 40	7 11 28	10 4 01	7 14 57	7 27 51	8 11 19	0 8 50
12	7 45	4 55	12 03	4 15	15 00	27 54	11 21	8 43
13	9 34r	n 6 10r	12 38	4 30	15 04	27 56	11 23	8 38
14	11 24	7 26	13 13	4 44	15 07	27 58	11 24	8 36
15	13 12	8 41	13 47	4 59	15 10	28 00	11 26	8 36
16s	10 15 01	10 9 56	7 14 22	10 5 13	7 15 13	7 28 02	8 11 28	0 8 36
17	16 48	11 11	14 57	5 27	15 16	28 04	11 29	8 36
18	n18 34	12 26	15 31	5◎42	15 19	28 06	11 31	8 35
19	20 19	13 41	16 06	5 56	15 22	28 08	11 32	8 32
20	22 02	14 56	n 16 40	6 11	15 25	28 10	11 34	8 27
21	10 23 42	10 16 11	7 17 14	10 6 25	7 15 28	7 28 11	8 11 35	0 8 19
22	25 20	17 26	17 49	n 6 39	15 30	28 13	11 36	8 10
23s	26 54	18 41	18 23	6 54	15 33	28 15	11 38	8 00
24	28 24	n 19 56	18 57	7 08	15 35	28 17	11 39	7 49
25	10 29 49	21 11	19 31	7 23	15 37	28 18	11 41	7 40
26	11 1 09	10 22 26	7 20 05	10 7 37	7 15 39	7 28 20	8 11 42	0 7 33
27	n 2 23	23 41	20 39	7 51	15 42	28 21	11 43	7 28
28	11 3 31e	10 24 56	7 21 13	10 8 06	7 15 44	7 28 23	8 11 44	0 7 26

1st Feb. : ♅ Lat. 0° S 04′, Decli. 23°S12′ ♆ Lat. 1°N04′, Decli. 22°S18′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	2S05	19S15	1S17	17S38	0N49	19S12	0S49	13S 51	1N51	19S49	6 13 41
3	2 04	18 14	19	16 54	48	28	49	42	51	50	13 41
5	2 01	17 06	21	16 09	46	44	49	32	51	51	13 42
7	1 55	15 53	22	15 23	45	19 59	49	22	52	52	R 13 42
9	1 48	14 34	24	14 34	44	20 13	49	13	52	53	13 42
11	1 38	13 09	25	13 44	43	27	49	13 03	52	54	13 42
13	1 26	11 40	26	12 52	41	41	49	12 53	52	54	13 42
15	1 12	10 06	27	12 00	40	20 54	49	43	53	55	13 41
17	0 54	8 29	1 27	11 05	0 39	21 06	0 49	12 33	1 53	19 56	6 13 41
19	0 34	6 49	27	10 10	37	18	50	23	53	57	13 40
21	0S 11	5 10	27	9 13	36	30	50	13	54	57	13 39
23	0N 14	3 31	27	8 16	34	41	50	12 03	54	58	13 38
25	0 42	1 57	26	7 18	32	21 51	50	11 53	54	58	13 37
27	1 10	0S30	25	6 19	31	22 01	50	43	54	58	13 36
28	1N 25	0N10	1S 25	5S49	0N30	22S06	0S 50	11S38	1N55	19S58	6 13 36

1st: Rahu Decli. 12° N 43′ PL: M. Pass. h 5-58, Lat. 16°N37′, Decli. 1°N47′

First Quarter—16th, 25*h* 25*m*

Full Moon—24th, 20*h* 32*m*

Date	Sidereal Time (Noon)	र ☉ स Longitude	☉ Decli.	च ☽ ड Longitude	☽ Lat.	☽ Decli.	☽ M. Pas	Naksatr.	Tithi	Ind. Dt.
		24 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 St	22 35 05	10 16 26 31	7S47	6 13 22 36	0S32	14S22	3 36	15	20	10
2 S	22 39 02	17 26 43	7 24	6 27 34 00	1 40	19 47	4 30	16	21	11
3 M	22 42 59	18 26 54	7 01	7 11 43 41	2 54	24 03	5 30	17	22	12
4 Tu	22 46 55	n 19 27 01	6 38	7 25 50 27	3 51	26 52	6 30	18	24	13
5 W	22 50 52	20 27 12	6 15	8 9 52 55	4 34	27 57	7 30	19	25	14
6 Th	22 54 48	10 21 27 18	5 52	8 23 49 44	5 00	27 15	8 30	20	26	15
7 F	22 58 45	22 27 23	5 29	9 7 39 08	5 08	24 53	9 30	21	27	16
8 St	23 02 41	23 27 26	5 05	9 21 18 56	4 59	21 06	10 24	22	28	17
9 S	23 06 38	24 27 28	4 42	10 4 46 51	4 33	16 17	11 12	23	29	18
10 M	23 10 34	25 27 27	4 18	10 18 00 46	3 53	10 47	12 00	24	30	19
11 Tu	23 14 31	10 26 27 25	3 55	11 0 59 06	3 02	4S55	12 42	25	1	20
12 W	23 18 28	27 27 21	3 31	11 13 41 10	2 02	1N03	13 24	26	2	21
13 Th	23 22 24	28 27 15	3 08	11 26 07 26	0S57	6 51	14 06	27	3	22
14 F	23 26 21	10 29 27 07	2 44	0 8 19 29	0N09	12 16	14 48	1	4	23
15 St	23 30 17	11 0 26 56	2 20	0 20 20 00	1 14	17 13	15 30	2	5	24
16 S	23 34 14	11 1 26 44	1 57	1 2 12 35	2 15	21 24	16 18	3	6	25
17 M	23 38 10	n 2 26 28	1 33	1 14 01 33	3 10	24 43	17 06	4	6	26
18 Tu	23 42 07	3 26 10	1 09	1 25 51 44	3 57	26 53	17 54	5	7	27
19 W	23 46 03	4 25 51	0 46	2 7 48 11	4 31	28 00	18 48	6	8	28
20 Th	23 50 00	5 25 30	0S22	2 19 55 53	5 00	27 43	19 42	6	9	29
21 F	23 53 56	11 6 25 07	0N02	3 2 19 31	5 12	26 04	20 30	7	10	30
22 St	23 57 53	7 24 41	0 25	3 15 02 55	5 10	23 04	21 24	8	11	1
23 S	0 01 50	8 24 12	0 49	3 28 08 46	4 51	18 50	22 12	9	12	2
24 M	0 05 46	9 23 42	1 13	4 11 38 04	4 17	13 33	23 00	10	13	3
25 Tu	0 09 43	10 23 09	1 37	4 25 29 56	3 26	7 27	23 48	11	14	4
26 W	0 13 39	11 11 22 34	2 00	5 9 41 25	2 22	0N50	—	12	15	5
27 Th	0 17 36	12 21 58	2 24	5 24 07 52	1N07	5S57	0 36	14	16	6
28 F	0 21 32	13 21 19	2 47	6 8 43 23	0S13	12 30	1 30	15	18	7
29 St	0 25 29	14 20 38	3 11	6 23 21 44	1 32	18 24	2 24	16	19	8
30 S	0 29 26	15 19 55	3 34	7 7 57 05	2 45	23 11	3 18	17	20	9
31 M	0 33 22	11n 16 19 11	3N57	7 22 24 37	3S47	26S29	4 24	18	21	10

Lunar Phalguna (Sukla) begins on 10th, 20*h* 22*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set. (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 12 27	13 16	12 51	6 23	11 43	5 58	6 51	7 49	5 58 36	17 39 36
3	12 03	14	52	20	37	51	44	41	56 54	40 30
5	11 37	09	54	17	31	43	36	34	55 12	41 24
7	11 10	13 01	55	14	25	35	28	26	53 24	42 12
9	10 41	12 52	56	11	18	28	21	18	51 42	43 00
11	10 10	41	57	08	12	20	13	11	49 48	43 48
13	09 38	28	59	04	06	12	6 05	7 03	48 00	44 36
15	09 05	15	13 00	6 01	11 00	5 04	5 57	6 55	46 06	45 18
17	12 08 31	12 00	13 01	5 57	10 54	4 57	5 50	6 47	5 44 18	17 46 06
19	07 56	11 46	02	55	48	49	42	39	42 24	46 48
21	07 21	33	03	51	42	41	34	32	40 30	47 30
23	06 45	20	04	48	36	33	26	24	38 36	48 18
25	06 08	11 08	06	45	30	25	18	16	36 36	49 00
27	05 32	10 58	07	41	23	17	10	08	34 42	49 42
29	04 55	50	08	38	17	09	5 03	6 01	32 48	50 24
31	12 04 19	10 42	13 10	5 34	10 11	4 01	4 55	5 53	5 30 54	17 51 06

Sun enters : Mina (Sid. Pisces) 14th, 18*h* 42*m*. **Trop. Aries 20th, 27*h* 33*m*.**

Last Quarter—3rd, 17*h* 47*m*. **New Moon—10th, 20*h* 22*m*.**

EPHEMERIS 1st Mar. : Ayanamsa 23° 39′ 41″ **March: 1986**

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	मं ♂ मं	बृ ♃ बृ	श ♄ श	हा ♅ हा:	ने: ♆ ने:	रा ☊ रा
	26 naks.	25 naks.	18 naks.	24 naks.	17 naks.	18 naks.	19 naks.	1/15n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	11 4 31	10 26 11	7 21 46	10 8 20s	7 15 45	7 28 24	8 11 46	0 7 25
2s	5 24	27 26	22 20	8 35	15 47	28 26	11 47	7 26
3	6 08	28 41	22 53	8 49	15 49	28 27	11 48	7 27
4	6 44	10 29 55	23 27	9 03	15 51	28 28	11 49	7 28
5	7 11	11 1 10	24 00	9 17	15 52	28 29	11 50	7 26
6	11 7 29	11n 2 25	7 24 34	10 9 32	7 15 53	7 28 30	8 11 51	0 7 22
7	R 7 33	3 40	25 07	9 46r	15 55	28 32	11 52	7 16
8	7 38	4 55	25 40	10 00	15 56	28 33	11 53	7 09
9s	7 28	6 09	26 13	10 14	15 57	28 34	11 54	7 02
10	7 10s	7 24	26 46	10 29	15 58	28 35	11 55	6 54
11	11 6 44	11 8 39	7 27 18	10 10 43	7 15 59	7 28 35	8 11 56	0 6 48
12	6 11	9 53	27 51	10 57	16 00	28 36	11 57	6 44
13	5 30	11 08	28 23	11 11	16 00	28 37	11 58	6 42
14	4 45	12 23	28 56	11 25	16 01	28 38	11 59	6 42
15	n 3 54	13 37	7n29 28	11 39	16 02	28 39	12 00	6 42
16s	11 3♂01	11 14 52	8 0 00	10 11 53	7 16 02	7 28 39	8 12 00	0 6 44
17	2 05	n 16 06	0 32	12 07	16 02	28 40	12 01	6 45
18	1 09	17 21	1 04	12 21	16 02	28 40	12 02	6 47
19	11 0 13	18 35	1 36	12 35	R 16 03	28 41	12 03	6 47
20	10 29 15	19 50	2 07	12 49	16 03	28 41	12 03	6 46
21	28 26	11 21 04	8 2 39	10 13 03	7 16 02	7 28 42	8 12 04	0 6 43
22	27 38	22 18	3 10	13 17	16 02	28 42	12 04	/n 6 40
23s	26 53	23 33	3 42	13 30	16 02	28 42	12 05	6 35
24	26 14r	24 47	4 13	13 44	16 01	28 42	12 05	6 31
25	25 40	26 01	4 44	13 58	16 01	28 43	12 06	6 27
26	10 25 11	11 27 16	8 5 14	10 14 11	7 16 00	7 28 43	8 12 06	0 6 24
27	24 49	28 30	5 45	14 25	16 00	R 28 43	12 07	6 23
28	24 32	11n29 44	6 15	14 38	15 59	28 43	12 07	6 22
29	24 21	0 0 58	6 46	14 52	15 58	28 43	12 07	6 23
30s	D24 16	2 12	7 16	15 05	15 57	28 43	12 08	6 24
31	10 24 17	0 3 26	8 7 46	10 15 19	7 15 56	7 28 42	8 12 08	0 6 26

1st Mar. : ♅ Lat. 0°S04′, Decli. 23°S16′ ♆ Lat. 1°N04′, Decli. 22°S16′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter.		♄ Saturn		PLUTO (Long.) 15 naks
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	1N39	0N48	1S24	5S19	0N29	22S10	0S50	11S33	1N55	19S59	6R13 35
3	2 08	1 52	23	4 19	27	19	50	23	55	59	13 33
5	2 35	2 42	21	3 18	25	27	51	13	55	59	13 32
7	2 58	3 15	19	2 17	23	35	51	11 02	56	59	13 30
9	3 17	3 28	17	1 15	21	42	51	10 52	56	59	13 28
11	3 31	3 23	15	0S14	19	49	51	42	56	59	13 26
13	3 37	2 59	12	0N48	17	22 55	51	32	56	59	13 24
15	3 35	2 19	09	1 50	15	23 01	52	22	57	59	13 22
17	3 25	1 27	1 06	2 51	0 12	23 07	0 52	10 12	1 57	19 59	6 13 20
19	3 09	0N27	1 03	3 53	10	12	52	10 02	57	59	13 18
21	2 46	0S36	0 59	4 54	07	16	52	9 52	58	58	13 15
23	2 19	1 37	56	5 54	05	20	52	42	58	58	13 13
25	1 49	2 33	52	6 54	0N02	24	53	32	58	58	13 10
27	1 18	3 22	48	7 53	0S01	27	53	22	58	57	13 07
29	0 47	4 01	44	8 52	04	30	53	12	59	57	13 04
31	0N17	4S30	0S39	9N50	0S06	23S33	0S53	9S02	1N59	19S56	6 13 01

1st : Rahu Decli. 11°N51″ PL : M. Pass. h 4·08 Lat. 16°N52′, Decli. 2°N03′

First Quarter—18th, 22*h* 09*m*. Full Moon—26th, 8*h* 32*m*.

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Date	Sidereal Time (Noon)	र ☉ स् Longitude 27 nakṣatra	☉ Decli.	च ☽ स् Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakṣatra	Tithi	Ind. Dt.
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 Tu	0 37 19	11 17 18 26	4N20	8 6 40 49	4S34	28S01	5 24	19	22	11
2 W	0 41 15	18 17 38	4 44	8 20 43 30	5 04	27 42	6 24	20	23	12
3 Th	0 45 12	19 16 48	5 07	9 4 31 31	5 16	25 41	7 24	21	24	13
4 F	0 49 08	20 15 57	5 30	9 18 04 33	5 09	22 13	8 18	22	25	14
5 St	0 53 05	21 15 04	5 53	10 1 22 47	4 46	17 40	9 06	23	26	15
6 S	0 57 01	11 22 14 09	6 15	10 14 26 37	4 09	12 23	9 54	24	27	16
7 M	1 00 58	23 13 12	6 38	10 27 16 35	3 19	6 39	10 42	25	28	17
8 Tu	1 04 55	24 12 13	7 01	11 9 53 21	2 21	0S45	11 24	26	29	18
9 W.	1 08 51	25 11 13	7 23	11 22 17 49	1 17	5N06	12 06	27	30	19
10 Th	1 12 48	26 10 10	7 45	0 4 31 04	0S10	10 40	12 48	1	1	20
11 F	1 16 44	11 27 09 05	8 08	0 16 34 40	0N57	15 47	13 30	2	2	21
12 St	1 20 41	28 07 59	8 30	0 28 30 35	2 00	20 15	14 12	3	3	22
13 S	1 24 37	11n29 06 50	8 52	1 10 21 22	2 58	23 52	14 54	4	4	23
14 M	1 28 34	0 0 05 39	9 13	1 22 10 09	3 48	26 28	15 54	4	5	24
15 Tu	1 32 30	1 04 25	9 35	2 4 00 36	4 29	27 54	16 36	5	6	25
16 W	1 36 27	0 2 03 10	9 56	2 15 56 46	4 58	28 03	17 30	6	7	26
17 Th	1 40 24	3 01 52	10 18	2 28 03 07	5 14	26 52	18 24	7	8	27
18 F	1 44 20	4 00 32	10 39	3 10 24 11	5 17	24 22	19 12	8	9	28
19 St	1 48 17	4 59 10	11 00	3 23 04 13	5 04	20 39	20 00	9	10	29
20 S	1 52 13	5 57 45	11 21	4 6 06 58	4 36	15 51	20 54	10	11	30
21 M	1 56 10	0 6 56 19	11 41	4 19 34 59	3 52	10 09	21 42	11	12	1
22 Tu	2 00 06	7 54 50	12 01	5 3 29 07	2 53	3N47	22 24	12	13	2
23 W	2 04 03	8 53 19	12 22	5 17 48 04	1 41	2S59	23 12	13	14	3
24 Th	2 07 59	9 51 47	12 42	6 2 28 01	0N21	9 45	—	14	15	4
25 F	2 11 56	10 50 12	13 01	6 17 22 51	1S01	16 06	0 06	15	16	5
26 St	2 15 53	0 11 48 35	13 21	7 2 24 37	2 20	21 32	1 06	16	17	6
27 S	2 19 49	n 12 46 57	13 40	7 17 24 43	3 29	25 33	2 06	18	18	7
28 M	2 23 46	13 45 17	13 59	8 2 15 03	4 23	27 46	3 12	19	20	8
29 Tu	2 27 42	14 43 35	14 18	8 16 49 08	4 59	28 00	4 12	20	21	9
30 W	2 31 39	0 15 41 52	14N37	9 1 02 37	5S16	26S22	5 18	21	22	10

Lunar Chaitra (Sukla) begins on 9th, 11*h* 38*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 04 01	10 59	13 10	5 33	10 08	3 57	4 51	5 49	5 30 00	17 51 24
3	03 25	34	12	29	10 02	49	43	41	23 06	52 06
5	02 50	30	13	25	9 56	41	35	33	26 12	52 48
7	02 16	27	15	22	49	33	27	25	24 18	53 30
9	01 43	24	16	18	43	25	19	17	22 30	54 12
11	01 11	23	18	14	37	16	11	10	20 42	55 00
13	00 39	22	20	10	30	08	4 03	5 02	18 54	55 42
15	12 00 09	22	22	06	24	3 00	3 55	4 54	17 12	56 30
17	11 59 41	10 23	13 23	5 02	9 18	2 52	3 47	4 46	5 15 30	17 57 12
19	59 14	21	25	4 58	11	44	39	38	13 48	58 00
21	58 48	25	27	54	9 05	35	31	30	12 06	58 48
23	58 24	27	29	50	8 59	27	23	22	10 36	17 59 30
25	58 02	30	32	46	52	19	15	14	09 00	18 00 18
27	57 42	33	34	41	46	10	3 07	4 06	07 30	01 12
29	57 23	36	36	37	39	2 02	2 59	3 58	06 06	02 00
30	11 57 15	10 38	13 37	4 34	8 36	1 58	2 55	3 54	5 05 24	18 02 24

Sun enters : Mesha (Sid. Aries) 13th, 27*h* 12*m* Trop. Taurus 2 th, 14*h* 42*m*

Last Quarter—1st, 25*h* 00*m*. New Moon—9th, 11*h* 38*m*.

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	म ♂ म	बृ ♃ बृ	श ♄ श	हा: ♅ हा:	ने: ♆ ने:	रा ☊ रा
	25 nakṣ.	1 nakṣ.	19 nakṣ.	24 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	1/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	10 24 23	0 4 41	8 8 16	10 15 32	7R 15 55	7R 28 42	8 12 08	0 6 27
2	24 35	5 55	8 46	15 45	15 53	28 42	12 08	6 27
3	24 52	7 09	9 15	15 59	15 52	28 42	12 09	6 26
4	25 14	8 23	9 44	16 12	15 50	28 41	12 09	6 25
5	25 40	9 37	10 13	16 25	15 49	28 41	12 09	6 23
6s	10 26 11	0 10 50	8 10 42	10 16 38	7 15 47	7 28 40	8 12 09	0 6 21
7	26 46	12 04	11 11	16 51	15 45	28 40	R 12 09	6 19
8	27 25	n 13 18	11 39	17 04	15 44	28 39	12 09	6 17
9	28 07	14 32	12 08	17 17	15 42	28 39	12 09	6 16
10	28 54	15 46	12 36	17 30	15 40	28 38	12 09	6 16
11	10 29 43	0 17 00	8n 13 04	10 17 43	7 15 37	7 28 37	8 12 09	0 6 16
12	11 0 36	18 13	13 31	17 55	15 35	28 37	12 09	6 17
13s	1 32e	19 27	13 59	18 08	15 33	28 36	12 08	6 18
14	n 2 31	20 41	14 26	18 20	15 30	28 35	12 08	6 19
15	3 33	21 54	14 53	18 33	15 28	28 34	12 08	6 19
16	11 4 37	0 23 08	8 15 19	10 18 45	7 15 25	7 28 33	8 12 08	0 6 20
17	5 44	24 22	15 46	18 57	15 23	28 32	12 07	6 20
18	6 54	n 25 35	16 12	19 10	15 20	28 31	12 07	6 20
19	8 05	26 49	16 38	19 22	15 17	28 30	12 07	6 20
20s	9 19	28 02	17 03	19 34	15 14	28 29	12 06	6 20
21	11 10 36	0 29 15	8 17 29	10 19 46	7 15 11	7 28 28	8 12 06	0 6 20
22	11 54	1 0 29	17 54	n 19 58	15 08	28 26	12 05	6 20
23	13 14	1 42	18 19	20 10	15 05	28 25	12 05	6 20
24	14 37	2 55	18 43	20 22	15 02	28 24	12 04	6 20
25	n 16 01	4 09	19 07	20 33	14 59	28 22	12 04	6 20
26	11 17 28	1 5 22	8 19 31	10 20 45	7 14 56	7 28 21	8 12 03	0 6 20
27s	18 56	6 35	19 55	20 56	14 52	28 20	12 03	6 19
28	20 27	7 48	20 18	21 08	14 49	28 18	12 02	6 18
29	21 59	n 9 01	20 41	21 19	14 45	28 17	12 01	6 18
30	11 23 33	1 10 14	8 21 03	10 21 30	7 14 42	7 28 15	8 12 01	0 6 17

1st. Apr. : ♅ Lat. 0° N 05′, Decli. 23° S 18′ ♆ Lat. 1° N05′, Decli. 22° S14′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	0° N03′	4° S41′	0° S37′	10° N19′	0° S08′	23° S34′	0° S54′	8° S57′	1° N59′	19° S56′	6R 13 00
3	0 S24	4 55	32	11 15	11	36	54	47	1 59	55	12 57
5	0 49	4 59	28	12 11	14	38	54	38	2 00	54	12 54
7	1 12	4 54	23	13 05	18	39	54	28	00	54	12 51
9	1 32	4 40	18	13 58	21	40	55	18	00	53	12 48
11	1 50	4 18	13	14 49	25	41	55	09	00	52	12 44
13	2 05	3 49	07	15 40	29	42	55	8 00	00	51	12 41
15	2 18	3 13	0S02	16 28	32	42	56	7 51	01	50	12 38
17	2 28	2 30	0N03	17 15	0 36	23 43	0 56	7 41	2 01	19 49	6 12 35
19	2 36	1 41	09	18 00	41	43	56	32	01	48	12 31
21	2 41	0S47	14	18 44	45	43	57	23	01	47	12 28
23	2 45	0N13	19	19 25	49	43	57	14	01	46	12 25
25	2 46	1 18	25	20 04	54	43	57	7 06	01	45	12 21
27	2 44	2 27	30	20 42	0 59	43	58	6 57	02	44	12 18
29	2 41	3 41	35	21 17	1 03	43	58	49	02	43	12 14
30	2S38	4N19	0N38	21N33	1S06	23S43	0S58	6S45	2N02	19S42	6 12 13

1st : Rahu Decli. 11°N31′ PL : M. Pass. h 2-04, Lat. 17°N03′, Decli. 2°N24′

First Quarter—17th, 16*h* 05*m*. Full Moon—24th, 18*h* 16*m*.

Date	Sidereal Time (Noon)	र ☉ स् Longitude	☉ Decli.	च ☽ ठ Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakṣatr.	Tithi	Ind. Dt.
		2 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 Th	2 35 35	0 16 40 08	14N55	9 14 53 36	5S13	23S10	6 12	22	23	11
2 F	2 39 32	17 38 22	15 13	9 28 22 01	4 54	18 48	7 06	23	24	12
3 St	2 43 28	18 36 34	15 31	10 11 29 25	4 19	13 39	7 54	24	25	13
4 S	2 47 25	19 34 46	15 49	10 24 18 06	3 32	8 01	8 42	25	26	14
5 M	2 51 22	20 32 55	16 06	11 6 50 51	2 36	2S11	9 24	26	27	15
6 Tu	2 55 18	0 21 31 03	16 24	11 19 10 28	1 34	3N38	10 06	27	28	16
7 W	2 59 15	22 29 10	16 40	0 1 19 33	0S28	9 14	10 42	1	29	17
8 Th	3 03 11	23 27 15	16 57	0 13 20 31	0N39	14 28	11 24	2	30	18
9 F	3 07 08	24 25 18	17 13	0 25 15 30	1 43	19 06	12 12	2	1	19
10 St	3 11 04	25 23 20	17 29	1 7 06 35	2 42	22 57	12 54	3	1	20
11 S	3 15 01	0n26 21 20	17 45	1 18 55 48	3 34	25 50	13 42	4	2	21
12 M	3 18 57	27 19 19	18 00	2 0 45 21	4 16	27 36	14 30	5	3	22
13 Tu	3 22 54	28 17 15	18 15	2 12 37 46	4 48	28 06	15 24	6	4	23
14 W	3 26 51	0 29 15 10	18 30	2 24 35 53	5 08	27 17	16 18	7	5	24
15 Th	3 30 47	1 0 13 04	18 45	3 6 43 02	5 14	25 11	17 06	8	6	25
16 F	3 34 44	1 1 10 55	18 59	3 19 02 53	5 06	21 53	17 54	9	7	26
17 St	3 38 40	2 8 45	19 13	4 1 39 22	4 43	17 32	18 48	10	8	27
18 S	3 42 37	3 6 33	19 26	4 14 36 23	4 06	12 16	19 30	11	9	28
19 M	3 46 33	4 4 20	19 40	4 27 57 15	3 14	6N08	20 12	12	10	29
20 Tu	3 50 30	5 2 04	19 52	5 11 44 25	2 10	0S10	21 00	13	11	30
21 W	3 54 26	1 5 59 47	20 05	5 25 58 27	0N55	6 50	21 54	14	12	31
22 Th	3 58 23	6 57 29	20 17	6 10 37 33	0S25	13 20	22 48	15	13	1
23 F	4 02 20	7 55 09	20 29	6 25 36 57	1 45	19 14	23 48	16	14	2
24 St	4 06 16	8 52 48	20 40	7 10 49 05	2 58	23 58	—	17	16	3
25 S	4 10 13	n 9 50 25	20 51	7 26 04 11	3 59	27 01	0 48	18	17	4
26 M	4 14 09	1 10 48 02	21 02	8 11 11 56	4 43	28 04	1 54	19	18	5
27 Tu	4 18 06	11 45 37	21 13	8 26 03 01	5 07	27 03	3 00	20	19	6
28 W	4 22 02	12 43 11	21 23	9 10 30 36	5 10	24 14	4 06	22	20	7
29 Th	4 25 59	13 40 45	21 32	9 24 30 56	4 55	20 03	5 00	23	21	8
30 F	4 29 55	14 38 17	21 42	10 8 03 18	4 23	14 58	5 48	24	22	9
31 St	4 33 52	1 15 35 49	21N51	10 21 09 27	3S39	9S20	6 36	25	23	10

Lunar Vaisakha (Sukla) begins on 8th, 27*h* 40*m*.

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I. S. T.	S. Set (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	11 57 07	10 40	13 38	4 31	8 33	1 54	2 51	3 50	5 04 42	18 02 48
3	56 53	44	41	27	26	45	43	42	03 24	03 42
5	56 42	48	43	22	19	37	35	34	02 06	04 36
7	56 33	53	46	17	13	29	26	26	5 00 54	05 30
9	56 26	10 59	48	12	07	20	18	18	4 59 42	06 24
11	56 21	11 07	51	07	8 00	12	10	10	58 42	07 18
13	56 .9	13	54	4 02	7 54	1 01	2 02	3 02	57 42	08 12
15	56 18	20	56	3 56	47	0 55	1 54	2 54	56 42	09 06
17	11 56 20	11 29	13 59	3 51	7 40	0 46	1 46	2 46	4 55 54	18 10 00
19	56 24	38	14 02	45	33	38	37	38	55 06	10 .4
21	56 31	47	04	39	27	29	29	30	54 24	11 54
23	56 39	11 57	07	33	20	21	21	22	53 42	12 48
25	56 50	12 08	10	27	13	12	13	14	53 12	13 42
27	57 02	19	12	21	7 06	0 04	1 05	2 06	52 42	14 36
29	57 16	29	15	14	6 59	23 51	0 57	1 58	52 16	15 24
31	11 57 33	12 40	14 18	3 07	6 52	23 43	0 48	1 50	4 51 51	18 16 18

Sun enters: Vrisha (Sid. Taurus) 14th, 24*h* 05*m* Trop. Gemini, 21st 13*h* 58*m*.

Last Quarter—1st, 8*h* 52*m* & 30th, 18*h* 25*m*. New Moon—8th, 27*h* 40*m*.

Date	*Nirayana* Longitudes at 5-30 A.M. I.S.T.							
	बु ☿ बु	शु ♀ शु	म ♂ म	बृ ♃ बृ	श ♄ श	हा: ♅ हा	ने: ♆ ने:	रा ☊ रा
	27 nakṣ.	4 nakṣ.	20 nakṣ.	25 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	1/14n.
	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '	s ° '
1	11 25 09	1 11 27	8 21 26	10 21 41	7R 14 38	7R 28 13	8R 12 00	0 6 17
2	26 47	12 40	21 47	21 52	14 35	28 12	11 59	6 17
3	11n 28 26	13 53	22 09	22 03	14 31	28 10	11 59	6 17
4s	0 0 08	15 06	22 30	22 14	14 27	28 08	11 58	6 18
5	1 51	16 19	22 51	22 25	14 23	28 07	11 57	6 19
6	0 3 36	1 17 32	8 23 11	10 22 36	7 14 19	7 28 05	8 11 56	0 6 21
7	5 23	18 44	23 31	22 46	14 15	28 03	11 55	6 21
8	7 12s	19 57	23 50	22 57	14 11	28 01	11 54	6 21
9	9 03	21 10	24 09	23 07	14 07	27 59	11 53	6 20
10	10 56	n 22 23	24 28	23 17	14 03	27 57	11 52	6 18
11s	0n 12 50	1 23 35	8 24 46	10 23 27	7 13 59	7 27 55	8 11 51	0 6 15
12	14 47	24 48	25 03	23 37	13 55	27 53	11 50	6 12
13	16 45	26 00	25 21	23 47	13 51	27 51	11 49	6 09
14	18 45	27 13	25 37	23 57	13 46	27 49	11 48	6 05
15	20 47	28 25	25 53	24 06	13 42	27 47	11 47	6 02
16	0 22 50	1 29 38	8 26 09	10 24 16	7 13 38	7 27 45	8 11 46	0 6 01
17	n 24 55	2 0 50	26 24	24 25	13 34	27 43	11 45	6 00
18s	27 02	2 02	n 26 39	24 35	13 29	27 41	11 44	6 00
19	0 29 10	3 14	26 53	24 44	13 25	27 39	11 43	6 01
20	1 1 19	4 27	27 07	24 53	13 21	27 37	11 41	6 03
21	1 3 29	2n 5 39	8 27 20	10 25 02	7 13 16	7 27 34	8 11 40	0 6 04
22	5 39	6 51	27 32	25 10	13 12	27 32	11 39	6 04
23	n 7 ○ 51	8 03	27 44	25 19	13 07	27 30	11 38	6 03
24	10 02	9 15	27 55	25 28	13 03	27 28	11 36	6 00
25s	12 14	10 27	28 06	25 36	12 58	27 25	11 35	5 56
26	1 14 26	2 11 39	8 28 16	10 25 44	7 12 54	7 27 23	8 11 34	0 5 51
27	16 37	12 50	28 26	25 52	12 49	27 21	11 32	5 47
28	18 47	14 02	28 35	26 00	12 45	27 18	11 31	5 42
29	20 56	15 14	28 43	26 08	12 41	27 16	11 30	5 39
30	n 23 04	16 26	28 50	26 16	12 36	27 14	11 28	5 38
31	1 25 10r	2 17 37	8 28 57	10 26 23	7 12 32	7 27 11	8 11 27	0 5 38

1st May. : ♅ Lat. 0°S05', Decli. 23° S 17' ♆ Lat. 1°N06', Decli. 22°S13'

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decli.	Lat.	Decli.	Lat.	Decl.	Lat.	Decl.	
	° '	° '	° '	° '	° '	° '	° '	° '	° '	° '	s ° '
1	2S35	4N59	0N41	21N49	1S09	23S44	0S59	6S40	2N02	19S41	6R 12 11
3	2 27	6 20	46	22 20	14	44	59	32	02	40	12 08
5	2 18	7 44	51	22 48	19	44	0 59	24	02	39	12 04
7	2 06	9 11	0 56	23 13	25	45	1 00	16	02	38	12 01
9	1 52	10 40	1 01	23 36	31	45	00	09	02	36	11 58
11	1 36	12 10	06	23 56	37	47	01	6 01	02	35	11 54
13	1 19	13 42	11	24 13	43	48	01	5 54	02	34	11 51
15	1 00	15 23	15	24 28	49	50	02	47	02	32	11 48
17	0 40	16 43	1 20	24 39	1 56	23 52	1 02	5 40	2 02	19 31	6 11 45
19	0S20	18 10	24	24 48	2 03	55	02	33	02	29	11 42
21	0N01	19 33	28	24 55	10	23 58	03	26	02	28	11 39
23	0 22	20 50	32	24 58	17	24 02	03	20	02	27	11 36
25	0 43	22 00	36	24 58	24	06	04	14	02	25	11 33
27	1 02	23 01	39	24 56	32	10	04	08	02	24	11 30
29	1 19	23 52	42	22 50	40	15	05	5 02	02	22	11 27
31	1N34	24N32	1N45	24N42	2S18	24S18	1S05	4S56	2N02	19S21	6 11 24

1st: Rahu Decli. 11°N28' PL: M. Pass. h 23-59, Lat. 17°N06', Decli. 2°N41'

First Quarter—17th, 6*h* 30*m*

Full Moon—23rd, 26*h* 15*m*

Date	Sidereal Time (Noon)	र ☉ व Longitude	☉ Decli.	च ☽ द Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakstra.	Tithi	Ind. Dt.
		4 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 S	4 37 49	1 16 33 20	21N59	11 3 52 38	2S44	3S30	7 18	26	24	11
2 M	4 41 45	17 30 50	22 07	11 16 16 59	1 44	2N21	8 06	26	25	12
3 Tu	4 45 42	18 28 20	22 15	11 28 26 54	0S39	8 00	8 42	27	26	13
4 W	4 49 38	19 25 48	22 22	0 10 26 30	0N26	13 17	9 18	1	27	14
5 Th	4 53 35	20 23 16	22 29	0 22 19 27	1 29	18 02	10 06	2	28	15
6 F	4 57 31	1 21 20 43	22 36	1 4 08 58	2 28	22 04	10 48	3	29	16
7 St	5 01 28	22 18 09	22 42	1 15 57 37	3 20	25 11	11 36	4	30	17
8 S	5 05 24	n 23 15 35	22 48	1 27 47 33	4 04	27 13	12 30	5	1	18
9 M	5 09 21	24 12 59	22 53	2 9 40 32	4 37	28 01	13 18	6	2	19
10 Tu	5 13 18	25 10 23	22 58	2 21 38 15	4 58	27 30	14 12	7	3	20
11 W	5 17 14	1 26 07 45	23 03	3 3 42 30	5 06	25 41	15 00	8	4	21
12 Th	5 21 11	27 05 07	23 07	3 15 55 16	5 01	22 41	15 48	8	5	22
13 F	5 25 07	28 02 23	23 11	3 28 19 01	4 41	18 37	16 36	9	6	23
14 St	5 29 04	28 59 48	23 14	4 10 56 34	4 07	13 40	17 24	10	6	24
15 S	5 33 00	1 29 57 07	23 17	4 23 51 09	3 21	8 01	18 06	11	7	25
16 M	5 36 57	2 0 54 25	23 20	5 7 06 01	2 22	1N52	18 48	12	9	26
17 Tu	5 40 53	1 51 42	23 22	5 20 44 03	1N14	4S32	19 36	13	10	27
18 W	5 44 50	2 48 58	23 24	6 4 47 04	0S01	10 56	20 30	14	11	28
19 Th	5 48 47	3 46 13	23 25	6 19 15 01	1 17	16 57	21 30	15	12	29
20 F	5 52 43	4 43 28	23 26	7 4 05 09	2 31	22 06	22 30	17	13	30
21 St	5 56 40	2 5 40 42	23 26	7 19 11 42	3 34	25 53	23 30	18	14	31
23 S	6 00 36	n 6 37 56	23 27	8 4 25 55	4 24	27 49	—	19	15	1
23 M	6 04 33	7 35 09	23 26	8 19 37 20	4 54	27 39	0 42	20	17	2
24 Tu	6 08 29	8 32 21	23 25	9 4 35 21	5 03	25 28	1 48	21	18	3
25 W	6 12 26	9 29 34	23 24	9 19 11 24	4 53	21 38	2 48	22	19	4
26 Th	6 16 22	2 10 26 46	23 23	10 3 19 49	4 25	16 39	3 42	23	20	5
27 F	6 20 19	11 23 59	23 21	10 16 58 35	3 42	11 00	4 30	24	21	6
28 St	6 24 16	12 21 11	23 18	11 0 08 27	2 49	5S02	5 12	25	22	7
29 S	6 28 12	13 18 24	23 16	11 12 52 43	1 48	0N56	5 54	26	23	8
30 M	6 32 09	2 14 15 36	23N12	11 25 15 52	0S45	6N43	6 36	27	24	9

Lunar Jyaistha (Sukla) begins on 7th, 19*h* 30*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages							S. Rise (Cal.) I.S.T.	S. Set (Cal.) I.S.T.
		☿	♀	♂	♃	♄	♅	♆		
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	11 57 41	12 45	14 19	3 04	6 49	23 39	0 44	1 46	4 51 48	18 16 42
3	58 00	12 55	22	2 57	42	30	36	38	51 36	17 36
5	58 21	13 04	24	50	35	22	28	30	51 24	18 24
7	58 42	13	26	42	28	13	20	22	51 18	19 12
9	59 05	20	29	35	21	23 05	11	14	51 18	19 54
11	59 29	27	31	27	14	22 56	0 03	1 06	51 24	20 36
13	11 59 54	33	33	19	6 07	48	23 51	0 58	51 36	21 18
15	12 00 19	39	35	10	5 59	39	43	49	51 48	21 54
17	12 00 45	13 44	14 37	2 02	5 52	22 31	23 34	0 41	4 52 00	18 22 30
19	01 11	47	39	1 53	45	22	26	33	52 18	23 00
21	01 37	50	41	44	37	14	18	25	52 42	23 30
23	02 03	51	43	35	30	22 06	10	17	53 12	23 54
25	02 28	52	44	26	23	21 58	23 01	09	53 42	24 12
27	02 53	51	46	16	15	49	22 53	0 01	54 12	24 30
29	03 16	49	47	06	08	41	45	23 49	54 48	24 42
30	12 03 30	13 48	14 48	1 02	5 04	21 36	22 41	23 45	4 55 06	18 24 48

Sun enters : Mithuna (Sid. Gemini) 15th, 6*h* 43*m* Trop. Cancer 21st, 22*h* 00*m*

New Moon—7th, 19*h* 30*m* First Quarter—15th, 17*h* 30*m*

1st June : Ayanamsa 23° 39′ 54″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु 5 nakṣ. s ° ′	शु ♀ शु 6 nakṣ. s ° ′	म ♂ म 21 nakṣ. s ° ′	बृ ♃ बृ 25 nakṣ. s ° ′	श ♄ श 17 nakṣ. s ° ′	हा ♅ हा: 18 nakṣ. s ° ′	ने: ♆ ने 19 nakṣ. s ° ′	रा ☊ रा 1/14n. s ° ′
1s	1 27 15	2 18 49	8 29 03	10 26 31	7R12 27	7R 27 09	8R11 25	0 5 39
2	1 29 18	n 20 07	29 09	26 38	12 23	27 06	11 24	5 40
3	2 1 18	21 12	29 14	26 45	12 18	27 04	11 23	5 41
4	3 17	22 23	29 18	26 52	12 14	27 02	11 21	5 42
5	n 5 13	23 34	29 21	26 59	12 09	26 59	11 20	5 40
6	2 7 07	2 24 46	8 29 24	10 27 06	7 12 05	7 26 57	8 11 18	0 5 36
7	8 58	25 57	29 25	27 12	12 01	26 54	11 17	5 31
8s	10 47	27 08	R 29 26	27 19	11 56	26 52	11 15	5 23
9	12 33	28 19	29 27	27 25	11 52	26 49	11 14	5 14
10	14 17	2 29 30	29 26	27 31	11 48	26 47	11 12	5 05
11	2 15 58	3 0 41	8 29 25	10 27 37	7 11 43	7 26 44	8 11 10	0 4 56
12	17 37	1 52	29 23	27 42	11 39	26 42	11 09	4 48
13	n 19 13	n 3 03	29 21	27 48	11 35	26 39	11 07	4 42
14	20 46	4 14	29 17	27 53	11 31	26 37	11 06	4 38
15s	22 17	5 25	29 13	27 58	11 27	26 35	11 04	4 37
16	2 23 45	3 6 35	8 29 08	10 28 04	7 11 23	7 26 32	8 11 03	0 4 37
17	25 10	7 46	29 03	28 08	11 19	26 30	11 01	4 37
18	26 32	8 56	28 56	28 13	11 15	26 27	10 59	4 38
19	27 52	10 07	28 49	28 18	11 11	26 25	10 58	4 37
20	2 29 09	11 17	28 41	28 22	11 07	26 22	10 56	4 34
21	3 0 23	3 12 27	8 28 33	10 28 26	7 11 03	7 26 20	8 10 55	0 4 29
22s	1 34	13 37	28 24	28 30	10 59	26 17	10 53	4 21
23	n 2 42	14 47	28 14	28 34	10 55	26 15	10 51	4 12
24	3 47	n 15 57	28 03	28 38	10 52	26 13	10 50	4 03
25	4 48e	17 07	27 52	28 41	10 48	26 10	10 48	3 55
26	3 5 47	3 18 17	8 27 40	10 28 44	7 10 44	7 26 08	8 10 47	0 3 48
27	6 42	19 27	27 28	28 48	10 41	26 06	10 45	3 43
28	7 34	20 36	27 15	28 50	10 37	26 03	10 43	3 41
29s	8 22	21 46	27 01	28 53	10 34	26 01	10 42	3 40
30	3 9 07	3 22 55	8n26 47	10 28 56	7 10 31	7 25 59	8 10 40	0 3 41

1st June : ♅ Lat. 0°S05′, Decli. 23°S13′ ♆ Lat. 1°N07′, Decli. 22°S14′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	
1	1N40	24N48	1N46	24N37	2S52	24S21	1S06	4S54	2N01	19S20	6R11 23
3	1 51	25 12	49	24 25	3 00	28	06	49	01	19	11 21
5	1 59	25 25	51	24 10	09	35	07	44	01	18	11 18
7	2 04	25 29	53	23 52	17	42	07	39	01	16	11 16
9	2 05	25 23	54	23 32	26	24 51	08	35	01	15	11 13
11	2 04	25 09	56	23 09	35	25 00	09	32	00	14	11 11
13	2 00	24 48	57	22 43	43	09	09	26	00	12	11 09
15	1 52	24 21	57	22 15	3 52	19	09	23	00	11	11 07
17	1 42	23 49	1 57	21 45	4 01	25 30	1 10	4 19	2 00	19 10	6 11 05
19	1 30	23 12	57	21 13	10	41	11	16	1 59	09	11 04
21	1 14	22 31	57	20 38	19	25 52	11	13	59	08	11 02
23	0 57	21 49	56	20 01	28	26 04	12	11	59	07	11 00
25	0 36	21 04	55	19 22	36	16	12	09	59	06	10 59
27	0N14	20 18	53	18 41	45	28	13	07	58	05	10 58
29	0S10	19 32	51	17 59	53	40	14	05	58	04	10 57
30	0S23	19N10	1N50	17N37	4S57	26S46	1S14	4S04	1N58	19S03	6 10 56

1st : Rahu Decli. 11°N14′ PL : M. Pass. h 21-54 Lat. 16°N59′, Decli. 2°N50′

Full Moon—22nd, 9*h* 12*m* **Last Quarter—29th, 6*h* 23*m***

Date	Sidereal Time (Noon)	र ☉ स् Longitude	☉ Decli.	च ☽ 5 Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakṣatr	Tithi	Ind.Dt.
		6 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 Tu	6 36 05	2 15 12 49	23N09	0 7 23 01	0N20	12N09	7 18	1	25	10
2 W	6 40 02	16 10 02	23 05	0 19 19 14	1 22	17 02	8 00	2	26	11
3 Th	6 43 58	17 07 14	23 00	1 1 09 17	2 20	21 15	8 48	3	27	12
4 F	6 47 55	18 04 27	22 55	1 12 57 20	3 12	24 34	9 36	4	28	13
5 St	6 51 51	19 01 41	22 50	1 24 46 46	3 56	26 51	10 24	5	28	14
6 S	6 55 48	2n 19 58 54	22 45	2 6 40 14	4 29	27 56	11 18	5	29	15
7 M	6 59 45	20 56 07	22 39	2 18 39 ⊙ 49	4 51	27 42	12 06	6	30	16
8 Tu	7 03 41	21 53 20	22 32	3 0 46 25	5 00	26 09	13 00	7	1	17
9 W	7 07 37	22 50 34	22 25	3 13 01 30	4 55	23 22	13 48	8	2	18
10 Th	7 11 34	23 47 47	22 18	3 25 25 46	4 37	19 29	14 36	9	3	19
11 F	7 15 31	2 24 45 01	22 11	4 8 00 22	4 04	14 41	15 18	10	4	20
12 St	7 19 27	25 42 14	22 03	4 20 46 39	3 19	9 12	16 06	11	5	21
13 S	7 23 24	26 39 28	21 54	5 3 46 34	2 23	3N13	16 48	12	6	22
14 M	7 27 20	27 36 41	21 46	5 17 02 16	1 18	3S02	17 36	13	7	23
15 Tu	7 31 17	28 33 55	21 37	6 0 36 07	0N08	9 17	18 24	14	8	24
16 W	7 35 14	2 29 31 08	21 27	6 14 29 55	1S05	15 16	19 12	15	9	25
17 Th	7 39 10	3 0 28 22	21 17	6 28 44 22	2 16	20 34	20 12	16	10	26
18 F	7 43 07	1 25 36	21 07	7 13 18 16	3 19	24 45	21 18	17	11	27
19 St	7 47 03	n 2 22 50	20 57	7 28 07 46	4 10	27 21	22 24	18	13	28
10 S	7 51 00	3 20 04	20 46	8 13 06 22	4 45	28 01	23 30	19	14	29
21 M	7 54 56	3 4 17 18	20 34	8 28 05 24	5 00	26 37	—	21	15	30
22 Tu	7 58 53	5 14 33	20 23	9 12 55 22	4 54	23 22	0 30	22	16	31
23 W	8 02 50	6 11 49	20 11	9 27 27 36	4 30	18 43	1 30	23	17	1
24 Th	8 06 46	7 09 05	19 59	10 11 35 40	3 49	13 08	2 18	24	18	2
25 F	8 10 43	8 06 22	19 46	10 25 16 15	2 56	7 05	3 12	25	19	3
26 St	8 14 39	3 9 03 40	19 33	11 8 28 59	1 55	0S55	3 54	26	20	4
27 S	8 18 36	10 00 49	19 20	11 21 16 02	0S50	5N06	4 36	27	21	5
28 M	8 22 32	10 58 18	19 06	0 3 41 20	0N15	10 46	5 18	1	22	6
29 Tu	8 26 29	11 55 39	18 53	0 15 49 47	1 19	15 54	6 06	2	23	7
30 W	8 30 25	12 53 01	18 38	0 27 46 45	2 18	20 20	6 48	3	24	8
31 Th	8 34 22	3 13 50 24	1 · 24	1 9 37 28	3N10	23N56	7 36	3	25	9

Lunar Asadha (Sukla) begins on 7th, 10*h* 25*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages							S. Rise (Cal.) I. S. T.	S. Set (Cal.) I.S.T.
		☿	♀	♂	♃	♄	♅	♆		
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 03 42	13 47	14 48	0 57	5 00	21 32	22 37	23 41	4 55 24	18 24 54
3	04 05	44	50	47	4 53	24	29	33	56 06	24 12
5	04 27	39	51	37	45	16	21	24	56 48	25 00
7	04 47	32	52	26	37	21 08	12	16	57 30	24 54
9	05 06	25	53	16	29	20 59	22 04	08	58 18	24 42
11	05 23	16	53	0 06	22	51	21 56	23 00	59 06	24 30
13	05 39	13 06	54	23 50	14	43	48	22 52	4 59 54	24 12
15	05 53	12 55	55	40	4 06	35	40	44	5 00 42	23 48
17	12 06 04	12 44	14 55	23 29	3 58	20 27	21 32	22 36	5 01 30	18 23 24
19	06 13	31	56	19	50	18	23	28	02 24	22 48
21	06 20	17	56	23 09	42	10	15	20	03 12	22 12
23	06 25	12 04	56	22 59	33	20 02	21 07	12	04 06	21 30
25	06 28	11 51	56	49	25	19 54	20 59	22 04	04 54	20 48
27	06 28	38	56	39	18	46	51	21 56	05 48	19 54
29	06 26	26	56	29	09	38	43	48	06 36	19 00
31	11 06 22	11 15	14 56	22 20	3 01	19 30	20 35	21 39	5 07 30	18 18 00

Sun enters : Karkta (Sid. Caueer) 6th, 17*h* 36*m* Trop. Leo. 23rd, 8*h* 54*m*.

New Moon—7th, 10*h* 25*m*. **First Quarter—14th, 25*h* 40*m*.**

1st July : Ayanamsa 23° 39′ 59″

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	म ♂ म	बृ ♃ बृ	श ♄ श	हा: ♅ हा:	ने: ♆ ने:	रा ☊ रा
	8 naks.	9 naks.	20 naks.	25 naks.	17 naks.	18 naks.	19 naks.	1/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	3 9 47	3 24 04	8R26 33	10 28 58	7R10 27	7R25 56	8R10 38	0 3 41
2	10 24	25 14	26 18	29 00	10 24	25 54	10 37	3 39
3	10 57	26 23	26 02	29 02	10 21	25 52	10 35	3 36
4	11 26	27 32	25 46	29 04	10 18	25 50	10 34	3 31
5	11 50	28 41	25 30	29 06	10 15	25 47	10 32	3 22
6s	3 12 11	3n29 50	8 25 13	10 29 07	7 10 12	7 25 45	8 10 30	0 3 11
7	12 26	4 0 59	24 57	29 08	10 09	25 43	10 29	2 59
8	12 37	2 08	24 39	29 09	10 06	25 41	10 27	2 46
9	R 12 44	3 16	24 22	29 10	10 04	25 39	10 26	2 33
10	12 45	4 25	24☍05	29 11	10 01	25 37	10 24	2 21
11	3 12 42	4 5 33	8 23 47	10 29 11	7 9 59	7 25 35	8 10 22	0 2 12
12	12 34s	6 42	23 30	R 29 11	9 56	25 33	10 21	2 06
13s	12 22	7 50	23 12	29 11	9 54	25 31	10 19	2 03
14	12 05	8 58	22 55	29 11	9 51	25 29	10 18	2 01
15	11 44	10 06	22 37	29 11	9 49	25 27	10 16	2 01
16	3 11 18	4 11 13	8 22 20	10 29 10	7 9 47	7 25 25	8 10 15	0 2 01
17	10 49	n 12 21	22 03	29 10	9 45	25 23	10 13	2 00
18	10 16	13 28	21 47	29 09	9 43	25 21	10 12	1 56
19	9 40	14 36	21 30	29 08	9 41	25 19	10 10	1 49
20s	9 01	15 43	21 14	29 06	9 40	25 18	10 09	1 41
21	3 8 21	4 16 50	8 20 58	10 29 05	7 9 38	7 25 16	8 10 07	0 1 30
22	7 40	17 57	20 43	29 03	9 36	25 14	10·06	1 19
23	6⊙58	19 04	20 28	29 01	9 35	25 12	10 05	1 09
24	6 16	20 10	20 13	28 59	9 33	25 11	10 03	1 00
25	5 36	21 17	19 59	28 57	9 32	25 09	10 02	0 54
26	3 4 57	4 22 23	8 19 46	10 28 54	7 9 31	7 25 08	8 10 00	0 0 50
27s	4 20	23 29	19 33	28 52	9 30	25 06	9 59	0 49
28	n 3 47	24 35	19 21	28 49	9 29	25 05	9 58	0 48
29	3 17	n 25 41	19 09	28 46	9 28	25 03	9 56	0 48
30	2 52	26 47	18 58	28 42	9 27	25 02	9 55	0 47
31	3 2 31r	4 27 52	8 18 48	10 28 39	7 9 26	7 25 00	8 9 54	0 0 45

1st July. : ♅ Lat. 0° S 06′, Decli. 23°S08′ ♆ Lat. 1°N06′, Decli. 22°S16′

Date	♀ Mercury		☿ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 naks.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	s ° ′
1	0S37	18N47	1N49	17N14	5S00	26S52	1S14	4S04	1N58	19S03	6R10 56
3	1 05	18 04	46	16 28	08	27 04	15	02	57	02	10 55
5	1 34	17 23	43	15 41	15	16	15	02	57	01	10 54
7	2 04	16 45	39	14 52	21	27	16	01	56	01	10 53
9	2 34	16 11	35	14 01	27	38	17	01	56	00	10 53
11	3 04	15 43	31	13 10	33	48	17	01	56	19 00	10 52
13	3 32	15 20	26	12 17	37	27 57	18	02	55	18 59	10 52
15	3 58	15 04	21	11 23	42	28 06	18	02	55	59	D 10 52
17	4 21	14 55	1 15	10 28	5 45	28 14	1 19	4 03	1 54	18 58	6 10 52
19	4 39	14 53	09	9 32	48	21	20	05	54	58	10 52
21	4 52	14 58	1 02	8 36	50	27	20	06	53	58	10 53
23	4 58	15 10	0 56	7 38	52	32	21	08	53	58	10 53
25	4 57	15 28	48	6 40	53	36	21	11	53	58	10 54
27	4 49	15 51	41	5 42	54	39	22	13	52	58	10 54
29	4 35	16 17	33	4 43	53	41	23	16	52	58	10 55
31	4S 14	16N45	0N 24	3N44	5S53	28S42	1S23	4S19	1N51	18S58	6 10 56

1st: Rahu Decli. 10° N 32′ PL : M. Pass. 19-54. Lat. 16°N45′, Decli. 2°N45′

Full Moon—21st, 16*h* 10*m* Last Quarter—28th, 21*h* 04*m*

Date	Sidereal Time (Noon)	र ☉ स्र Longitude	☉ Decli.	च ☽ ट Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakṣatr.	Tithi	Ind. Dt.
	h m s	8 nakṣatra s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 F	8 38 18	3 14 47 48	18N09	1 21 26 50	3N54	26N29	8 18	4	26	10
2 St	8 42 15	n15 45 13	17 54	2 3 19 03	4 28	27 53	9 12	5	27	11
3 S	8 46 12	16 42 39	17 39	2 15 17 34	4 51	27 59	10 00	6	28	12
4 M	8 50 08	17 40 06	17 23	2 27 24 55	5 01	26 45	10 54	7	29	13
5 Tu	8 54 05	18 37 34	17 07	3 9 42☌42	4 57	24 13	11 42	8	30	14
6 W	8 58 01	3 19 35 03	16 51	3 22 11 47	4 39	20 31	12 36	9	1	15
7 Th	9 01 58	20 32 33	16 34	4 4 52 21	4 07	15 50	13 24	10	2	16
8 F	9 05 54	21 30 04	16 17	4 17 44 20	3 22	10 24	14 06	11	3	17
9 St	9 09 51	22 27 36	16 00	5 0 47 39	2 25	4N26	14 54	12	4	18
10 S	9 13 47	23 25 09	15 43	5 14 02 24	1 20	1S50	15 36	13	5	19
11 M	9 17 44	3 24 22 42	15 25	5 27 29 02	0N10	8 06	16 18	14	6	20
12 Tu	9 21 41	25 20 17	15 08	6 11 08 19	1S03	14 07	17 06	15	7	21
13 W	9 25 37	26 17 52	14 50	6 25 00 59	2 13	19 31	18 06	16	8	22
14 Th	9 29 34	27 15 29	14 31	7 9 07 13	3 16	23 55	19 06	17	9	23
15 F	9 33 30	28 13 06	14 13	7 23 26 12	4 07	26 55	20 06	18	10	24
16 St	9 37 27	3n29 10 44	13 54	8 7 55 27	4 44	28 10	21 12	19	11	25
17 S	9 41 23	4 0 08 23	13 35	8 22 30 40	5 02	27 28	22 12	20	12	26
18 M	9 45 20	1 06 04	13 16	9 7 05 57	5 01	24 53	23 12	21	13	27
19 Tu	9 49 16	2 03 45	12 57	9 21 31☍24	4 41	20 44	—	22	15	28
20 W	9 53 13	3 01 28	12 37	10 5 49 19	4 03	15 27	0 06	23	16	29
21 Th	9 57 10	4 3 59 12	12 17	10 19 45 11	3 12	9 28	0 54	24	17	30
22 F	10 01 06	4 56 58	11 57	11 3 18 28	2 10	3S12	1 48	25	18	31
23 St	10 05 03	5 54 45	11 37	11 16 27 54	1S04	3N02	2 30	26	19	1
24 S	10 08 59	6 52 34	11 17	11 29 14 30	0N05	8 59	3 06	27	20	2
25 M	10 12 56	7 50 24	10 56	0 11 40 56	1 11	14 25	3 48	1	21	3
26 Tu	10 16 52	4 8 48 16	10 36	0 23 51 11	2 13	19 11	4 36	2	22	4
27 W	10 20 49	9 46 10	10 15	1 5 50 00	3 08	23 06	5 24	3	23	5
28 Th	10 24 45	10 44 06	9 54	1 17 42 30	3 54	26 01	6 12	4	24	6
29 F	10 28 42	11 42 04	9 33	1 29 33 43	4 31	27 46	7 00	5	24	7
30 St	10 32 39	n 12 40 03	9 11	2 11 28 30	4 55	28 16	7 54	6	25	8
31 S	10 36 35	4 13 38 04	8N50	2 23 31 00	5N07	27N25	8 48	7	26	9

Lunar Sravana (Sukla) begins on 5th, 24*h* 06*m*.

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages							S. Rise (Cal.) I.S.T.	S. Set (Cal.) I.S.T.
		☿	♀	♂	♃	♄	♅	♆		
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 06 18	11 10	14 56	22 15	2 57	19 26	20 31	21 35	5 07 54	18 17 30
3	06 10	02	56	22 06	49	18	23	27	08 42	16 24
5	06 00	10 56	56	21 58	40	10	15	19	09 30	15 12
7	05 47	52	55	49	32	19 03	20 07	11	10 18	14 00
9	05 32	48	55	41	23	18 55	19 59	21 03	11 06	12 42
11	05 15	47	55	33	15	47	51	20 55	11 54	11 18
13	04 55	48	54	25	2 06	39	43	47	12 36	09 54
15	04 33	51	54	17	1 58	31	35	39	13 24	08 24
17	12 04 08	10 54	14 53	21 10	1 49	18 24	19 27	20 31	5 14 06	18 06 54
19	03 42	11 00	52	03	41	16	19	23	14 43	05 18
21	03 13	06	51	20 56	32	08	11	15	15 30	03 36
23	02 43	13	51	49	23	18 01	19 03	20 07	16 12	01 54
25	02 11	20	50	43	15	17 53	18 55	19 59	16 48	18 00 12
27	01 38	28	49	37	1 06	45	47	52	17 30	17 58 24
29	01 03	35	48	31	0 57	38	40	44	18 06	56 36
31	12 00 26	11 43	14 47	20 25	0 48	17 30	18 32	19 36	5 18 48	17 54 48

Sun enters: Simha (Sid. Leo) 16th, 26*h* 01*m* Trop. Virgo 23rd, 15*h* 56*m*.

New Moon—5th, 24*h* 06*m* First Quarter—13th, 7*h* 51*m*.

EPHEMERIS **1st Aug : Ayanamsa 23° 40′ 05″** **August, 1986**

Nirayana **Longitudes at 5-30 A.M. I.S.T.**

Date	বু ☿ बु 7 nakş.	শু ♀ शु 12 nakş.	ম ♂ म 20 nakş.	বৃ ♃ बृ 25 nakş.	শ ♄ श 17 nakş.	হা: ♅ হা: 18 nakş.	নে: ♆ নে: 19 nakş.	রা ☊ রা 1/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	3R 2 16	4 28 57	8R 18 38	10R 28 35	7 R 9 26	7R 24 59	8R 9 53	0 0 40
2	2 07	5 0 02	18 30	28 32	9 25	24 58	9 51	0 32
3s	D 2 04	1 07	18 21	28 28	9 25	24 57	9 50	0 22
4	2 07	2 12	18 14	28 24	9 24	24 56	9 49	0n/ 0 11
5	2 16	3 16	18 08	28 19	9 24	24 54	9 48	11 29 58
6	3 2 32	5 4 21	8 18 02	10 28 15	7 9 24	7 24 53	8 9 47	11 29 46
7	n 2 55	5 25	17 57	28 10	D 9 24	24 52	9 45	29 35
8	3 24	6 28	17 53	28 05	9 24	24 51	9 44	29 27
9	4 00	7 32	17 50	28 00	9 24	24 50	9 43	29 21
10s	4 42	8 35	17 47	27 55	9 24	24 49	9 42	29 18
11	3 5 31e	5 n 9 39	8 17 46	10 27 50	7 9 24	7 24 49	8 9 41	11 29 17
12	6 27	10 41	D 17 45	27 45	9 25	24 48	9 40	29 17
13	7 28	11 44	17 45	27 39	9 25	24 47	9 39	29 18
14	8 36	12 46	17 46	27 33	9 26	24 46	9 38	29 17
15	9 50	13 49	17 48	27 27	9 27	24 46	9 37	29 15
16	3 11 09	5 14 50	8 17 51	10 27 21	7 9 27	7 24 45	8 9 36	11 29 10
17s	12 34	15 52	17 54	27 15	9 28	24 44	9 35	29 03
18	14 03	16 53	17 58	27 09	9 29	24 44	9 34	28 55
19	n 15 37	17 54	18 04	27 02	9 30	24 43	9 34	28 46
20	17 16	18 55	18 10	26 56	9 32	24 43	9 33	28 38
21	3 18 58	5 19 55	8 18 16	10 26 49	7 9 33	7 24 43	8 9 32	11 28 31
22	20 44	20 55	18 34	26 42	9 34	24 42	9 31	28 26
23	22 32	21 54	18 32	26 36	9 36	24 42	9 31	28 23
24s	24 24	n 22 53	18 41	26 29	9 37	24 42	9 30	28 22
25	26 17	23 52	18 51	26 21	9 39	24 42	9 29	28 23
26	3n 28 12s	5 24 51	8 19 02	10 26 14	7 9 41	7 24 41	8 9 29	11 28 24
27	4 0 09	25 49e	19 13	26 07	9 43	D 24 41	9 28	28 25
28	2 06	26 46	19 25	26 00	9 45	24 41	9 27	28 25
29	4 04	27 44	19 38	25 52	9 47	24 41	9 27	28 23
30	6 03	28 40	19 51	25 45	9 49	24 41	9 26	28 19
31s	4 8 01	5 29 37	8 20 05	10 25 37	7 9 51	7 24 42	8 9 26	11 28 13

1st. Aug. : ♅ Lat. 0° S 06′, Decli. 23° S 03′ ♆ Lat. 1° N06′, Decli. 22° S 18′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakş.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	s ° ′
1	4S03	16N59	0N20	3N14	5S52	23S43	1S23	4S21	1N51	18S58	6 10 57
3	3 36	17 28	0 11	2 14	50	43	24	24	51	58	10 58
5	3 06	17 55	0N02	1 15	48	42	24	28	50	58	10 59
7	2 34	18 19	0S08	0N15	46	41	25	32	50	59	11 01
9	2 01	18 39	18	0S46	43	38	25	37	49	18 59	11 03
11	1 28	18 53	28	1 45	40	35	26	41	49	19 00	11 04
13	0 56	19 00	39	2 45	36	32	26	46	48	01	11 06
15	0S26	18 57	0 50	3 44	32	28	27	51	48	01	11 08
17	0N02	18 45	1 01	4 43	5 28	28 23	1 27	4 56	1 47	19 02	6 11 10
19	0 28	18 23	13	5 42	24	18	28	5 02	47	03	11 12
21	0 50	17 49	25	6 40	19	12	28	07	46	04	11 15
23	1 08	17 04	37	7 37	14	28 06	28	13	46	05	11 17
25	1 23	16 09	1 49	8 34	09	27 59	29	19	45	06	11 20
27	1 34	15 04	2 02	9 30	5 04	52	29	25	45	07	11 23
29	1 42	13 51	15	10 26	4 59	44	29	31	44	08	11 26
31	1N46	12N31	2S28	11S20	4S54	27S36	1S30	5S37	1N44	19S10	6 11 29

1st : Rahu Decli. 9°N26′ **PL : M. Pass. h 17-52, Lat. 16°N27′, Decli. 2°N28′**

Full Moon—19th, 24h 24m **Last Quarter—27th, 14h 08m**

Date	Sidereal Time (Noon)	र ☉ व Longitude	☉ Decli.	च ☽ द Longitude	☽ Lat.	☽ Decli.	☽ M. Pas	Naksatr	Tithi	Ind. Dt.
		11 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 M	10 40 32	4 14 36 07	8N28	3 5 44 42	5N06	25N15	9 36	8	27	10
2 Tu	10 44 28	15 34 12	8 06	3 18 12 05	4 50	21 52	10 24	9	28	11
3 W	10 48 25	16 32 19	7 45	4 0 44 32	4 19	17 24	11 12	10	29	12
4 Th	10 52 21	17 30 27	7 23	4 13 52 25	3 35	12 04	12 00	11	30	13
5 F	10 56 18	18 28 38	7 00	4 27 05 07	2 38	6N05	12 42	12	1	14
6 St	11 00 14	4 19 26 49	6 38	5 10 31 16	1 32	0S16	13 30	13	2	15
7 S	11 04 11	20 25 03	6 16	5 24 09 10	0N19	6 42	14 18	14	3	16
8 M	11 08 08	21 23 18	5 53	6 7 57 03	0S56	12 55	15 06	15	4	17
9 Tu	11 12 04	22 21 34	5 31	6 21 53 13	2 09	18 33	16 00	16	5	18
10 W	11 16 01	23 19 52	5 08	7 5 56 10	3 14	23 13	16 54	17	7	19
11 Th	11 19 57	4 24 18 12	4 45	7 20 04 30	4 08	26 33	18 00	18	8	20
12 F	11 23 54	25 16 33	4 23	8 4 16 34	4 47	28 12	19 00	19	9	21
13 St	11 27 50	n 26 14 55	4 00	8 18 30 19	5 08	28 00	20 06	20	10	22
14 S	11 31 47	27 13 20	3 37	9 2 43 05	5 11	25 58	21 00	21	11	23
15 M	11 35 43	28 11 45	3 14	9 16 51 35	4 55	22 20	21 54	22	12	24
16 Tu	11 39 40	4 29 10 13	2 51	10 0 52 05	4 21	17 27	22 48	23	13	25
17 W	11 43 37	5 0 08 42	2 27	10 14 40 48	3 32	11 44	23 30	24	14	26
18 Th	11 47 33	1 07 13	2 04	10 28 14 34	2 33	5S33	—	25	15	27
19 F	11 51 30	2 05 46	1 41	11 11 31 04	1 25	0N45	0 18	26	16	28
20 St	11 55 26	3 04 20	1 18	11 24 29 13	0S15	6 53	1 00	27	17	29
21 S	11 59 23	5 4 02 57	0 54	0 7 09 14	0N54	12 36	1 48	1	18	30
22 M	12 03 19	5 01 36	0 31	0 19 32 43	2 00	17 42	2 36	2	19	31
23 Tu	12 07 16	6 00 17	0N08	1 1 42 21	2 58	22 00	3 18	3	20	1
24 W	12 11 12	6 59 01	0S16	1 13 41 41	3 49	25 18	4 00	4	21	2
25 Th	12 15 09	7 57 46	0 39	1 25 35 00	4 28	27 28	4 54	5	22	3
26 F	12 19 06	5 8 56 34	1 02	2 7 26 54	4 57	28 23	5 42	6	23	4
27 St	12 23 02	n 9 55 24	1 26	2 19 22 11	5 13	27 59	6 36	6	24	5
28 S	12 26 59	10 54 16	1 49	3 1 25 32	5 15	26 17	7 30	7	25	6
29 M	12 30 55	11 53 10	2 12	3 13 41 13	5 03	23 19	8 18	8	26	7
30 Tu	12 34 52	5 12 52 07	2S36	3 26 12 55	4N36	19N13	9 12	9	27	8

Lunar Bhadra (Sukla) begins on 4th, 12*h* 40*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set. (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	12 00 07	11 46	14 46	20 22	0 44	17 26	18 28	19 32	5 19 06	17 53 54
3	11 59 29	11 53	45	17	35	19	20	24	19 42	52 00
5	58 50	12 00	43	11	26	11	12	16	20 18	50 06
7	58 10	06	42	06	17	17 04	18 04	08	20 54	48 06
9	57 29	12	40	20 01	0 09	16 56	17 57	19 00	21 24	46 12
11	56 47	17	39	19 56	23 56	49	49	18 52	22 00	44 12
13	56 05	22	37	51	47	42	41	44	22 36	42 12
15	55 22	27	35	47	38	34	33	36	23 12	40 12
17	11 54 39	12 32	14 33	19 42	23 29	16 27	17 26	18 29	5 23 48	17 38 12
19	53 56	36	30	38	20	20	18	21	24 18	36 12
21	53 14	40	28	34	11	12	10	13	24 54	34 12
23	52 31	44	25	30	23 02	16 05	17 03	18 05	25 24	32 12
25	51 49	47	22	26	22 54	15 58	16 55	17 57	26 06	30 12
27	51 08	50	18	22	45	50	47	49	26 42	28 12
29	50 28	54	14	18	36	43	40	42	27 18	26 18
30	11 50 08	12 55	14 12	19 17	22 32	15 40	16 36	17 38	5 27 36	17 25 18

Sun enters : Kanya (Sid. Virgo) 16th, 25*h* 56*m* **Trop. Libra 23rd, 13*h* 29*m***

New Moon—4th, 12*h* 40*m*

First Quarter—11th, 13*h* 11*m*.

EPHEMERIS 1st Sept. Ayanamsa 23° 40′ 09″ September, 1986

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	म ♂ म	बृ ♃ बृ	श ♄ श	हां ♅ हां:	नै: ♆ ने	रा ☊ रा
.	10 nakṣ.	14 nakṣ.	20 nakṣ.	25 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	27/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	4 9 59s	6 0 33	8 20 20	10R 25 29	7 9 53	7 24 42	8R 9 25	11 28 07
2	n 11 57	1 28	20 36	25 22	9 56	24 42	9 25	27 59
3	13 55	2 23	20 52	25 14	9 58	24 42	9 24	27 52
4	15 51	3 17	21 09	25 06	10 01	24 43	9 24	27 45
5	17 47	4 11	21 26	24 58	10 04	24 43	9 24	27 40
6	4 19 42	6 5 05	8 21 44	10 24 50	7 10 06	7 24 43	8 9 23	11 27 37
7s	21 36	n 5 57	22 03	24 42	10 09	24 44	9 23	27 36
8	23 29	6 50	22 22	24 35	10 12	24 44	9 23	27 36
9	n 25 21	7 41	22 42	24 27	10 15	24 45	9 23	27 37
10	27 12	8 32	23 03	24 19	10 18	24 46	9 23	27 39
11	4 29 01	6 9 22	8 23 24	10 24 11	7 10 22	7 24 46	8 9 22	11 27 39
12	5 0 50	10 12	23 45	24 03	10 25	24 47	9 22	27 39
13	2 37	11 01	24 08	23 55	10 28	24 48	9 22	27 37
14s	4 24	11 49	24 30	23 47	10 32	24 49	D 9 22	27 34
15	6 09	12 36	24 54	23 39	10 35	24 50	9 22	27 31
16	5 7 53	6 13 22	8 25 17	10 23 31	7 10 39	7 24 51	8 9 22	11 27 26
17	n 9 36	14 08	25 42	23 23	10 43	24 52	9 22	27 22
18	11 18	14 53	26 06	23 15	10 46	24 53	9 22	27 19
19	12 59	15 36	n 26 31	23 07	10 50	24 54	9 22	27 17
20	14 39	16 19	26 57	23 00	10 54	24 55	9 23	27 16
21s	5 16 18	6 17 01	8 27 23	10 22 52	7 10 58	7 24 56	8 9 23	11 27 17
22	17 56	17 42	27 50	22 44	11 02	24 57	9 23	27 18
23	19 33	18 22	28 17	22 37	11 06	24 59	9 23	27 19
24	21 09r	19 00	28 44	22 29	11 11	25 00	9 24	27 21
25	n 22 44	n 19 38	29 12	22 22	11 15	25 01	9 24	27 22
26	5 24 18	6 20 14	8 29 40	10 22 15	7 11 19	7 25 03	8 9 24	11 27 22
27	25 52	20 49	9 0 08	22 07	11 24	25 04	9 25	27 22
28s	27 24	21 23	0 37	22 00	11 29	25 06	9 25	27 21
29	5 28 55	21 55	1 07	21 53	11 33	25 08	9 25	27 19
30	6 0 26	6 22 26	9 1 36	10 21 46	7 11 38	7 25 09	8 9 26	11 27 18

1st Sept. : ♅ Lat. 0°S06′, Decli. 23°S02′ ♆ Lat. 1°N05′, Decli. 22°S20′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	s ° ′
1	1N46	11N49	2S34	11S47	4S51	27S32	1S30	5S40	1N44	19S10	6 11 30
3	1 46	10 22	2 48	12 40	46	23	30	46	43	12	11 33
5	1 43	8 52	3 01	13 32	40	14	30	53	43	13	11 36
7	1 38	7 19	15	14 22	35	27 04	30	5 59	42	15	11 40
9	1 31	5 44	28	15 12	29	26 53	31	6 05	42	16	11 43
11	1 22	4 10	42	16 00	24	43	31	12	42	18	11 47
13	1 12	2 35	3 56	16 47	18	31	31	18	41	19	11 50
15	1 01	1N00	4 09	17 32	13	20	31	24	41	21	11 54
17	0 49	0S33	4 23	18 15	4 07	26 07	1 31	6 31	1 40	19 23	6 11 58
19	0 36	2 06	36	18 57	4 02	25 54	31	37	40	25	12 02
21	0 22	3 37	4 50	19 37	3 56	41	31	43	39	26	12 06
23	0N08	5 06	5 03	20 15	51	27	31	48	39	28	12 10
25	0S06	6 33	16	20 51	45	25 12	31	6 54	39	30	12 14
27	0 21	7 58	5 29	21 25	40	24 57	31	7 00	38	32	12 18
29	0 35	9 20	5 41	21 56	35	24 42	31	05	38	34	12 22
30	0S43	10S01	5S47	22S11	3S32	24S34	1S30	7S08	1N38	19S35	6 12 25

1st : Rahu Decli. 8°N30′ PL : M. Pass h 15-52 Lat. 16°N10′, Decli. 2°N02′

Full Moon—18th, 11*h* 04*m* Last Quarter—26th, 8*h* 47*m*

Date	Sidereal Time (Noon)	र ⊙ स Longitude	⊙ Decli.	च ☽ न Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Naksatra	Tithi	Ind.Dt.
		13 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 W	12 38 48	5 13 51 06	2S59	4 9 03 16	3N56	14N10	9 54	10	28	9
2 Th	12 42 45	14 50 07	3 22	4 22 13 40	3 02	8 21	10 36	11	29	10
3 F	12 46 41	15 49 10	3 46	5 5 44☌02	1 56	2N01	11 12	12	30	11
4 St	12 50 38	16 48 16	4 09	5 19 32 49	0N42	4S34	12 12	13	1	12
5 S	12 54 35	17 47 23	4 32	6 3 37 02	0S35	11 03	13 00	14	2	13
6 M	12 58 31	5 18 46 33	4 55	6 17 52 39	1 52	17 04	13 54	15	3	14
7 Tu	13 02 28	19 45 44	5 18	7 2 15 05	3 02	22 11	14 48	16	4	15
8 W	13 06 24	20 44 57	5 41	7 16 39 39	4 01	25 58	15 54	17	5	16
9 Th	13 10 21	21 44 12	6 04	8 1 02 11	4 45	28 05	16 54	19	6	17
10 F	13 14 17	n 22 43 28	6 27	8 15 19 09	5 10	28 18	18 00	20	7	18
11 St	13 18 14	5 23 42 46	6 50	8 29 27 53	5 17	26 40	18 54	21	8	19
12 S	13 22 10	24 42 06	7 12	9 13 26 25	5 04	23 24	19 54	22	10	20
13 M	13 26 07	25 41 28	7 35	9 27 13 27	4 35	18 52	20 42	23	11	21
14 Tu	13 30 04	26 40 52	7 57	10 10 48 05	3 50	13 26	21 30	24	12	22
15 W	13 34 00	27 40 17	8 20	10 24 09 41	2 53	7 28	22 12	25	13	23
16 Th	13 37 57	5 28 39 44	8 42	11 7 17 49	1 48	1S17	22 54	26	14	24
17 F	13 41 53	5 29 39 13	9 04	11 20 12☍20	0S39	4N52	23 36	27	15	25
18 St	13 45 50	6 0 38 44	9 26	0 2 53 16	0N31	10 44	—	1	16	26
19 S	13 49 46	1 38 18	9 48	0 15 21 13	1 39	16 04	0 24	2	17	27
20 M	13 53 43	2 37 53	10 09	0 27 37 10	2 41	20 40	1 06	3	18	28
21 Tu	13 57 39	6 3 37 30	10 31	1 9 42 50	3 34	24 20	1 54	3	19	29
22 W	14 01 36	4 37 10	10 52	1 21 40 31	4 18	26 54	2 42	4	19	30
23 Th	14 05 32	5 36 51	11 13	2 3 33 14	4 50	28 15	3 36	5	20	1
24 F	14 09 29	n 6 36 35	11 34	2 15 24 34	5 10	28 17	4 30	6	21	2
25 St	14 13 26	7 36 21	11 55	2 27 18 36	5 16	27 01	5 18	7	22	3
26 S	14 17 22	6 8 36 09	12 16	3 9 19 52	5 09	24 30	6 06	8	23	4
27 M	14 21 19	9 36 00	12 36	3 21 32 57	4 48	20 52	6 54	9	24	5
28 Tu	14 25 15	10 35 53	12 57	4 4 2 23	4 13	16 14	7 42	10	25	6
29 W	14 29 12	11 35 48	13 17	4 16 52 09	3 25	10 47	8 24	11	26	7
30 Th	14 33 08	12 35 45	13 37	5 0 05 19	2 24	4N41	9 12	12	27	8
31 F	14 37 05	6 13 35 44	13S56	5 13 43 28	1N14	1S48	10 00	13	28	9

Lunar Asvina (Sukla) begins on 3rd, 24*h* 25*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I. S. T.	S. Set (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	11 49 49	12 57	14 10	19 16	22 28	15 36	16 32	17 34	5 28 00	17 24 18
3	49 11	13 00	. 07	12	19	29	24	26	28 36	22 24
5	48 34	02	14 02	08	10	22	17	18	29 18	20 30
7	47 58	05	13 57	05	22 02	14	09	11	30 00	18 36
9	47 25	08	51	19 02	21 53	07	16 02	17 03	30 42	16 42
11	46 53	10	44	18 58	44	15 00	15 54	16 55	31 24	15 00
13	46 22	12	37	55	36	14 53	47	47	32 12	13 12
15	45 54	14	30	52	28	46	39	40	33 00	11 30
17	11 45 28	13 15	13 21	18 49	21 19	14 39	15 32	16 32	5 33 48	17 09 48
19	45 04	16	13	46	11	32	24	24	34 36	08 12
21	44 43	17	13 03	43	21 02	25	17	16	35 24	06 36
23	44 24	17	12 53	40	20 54	18	09	09	36 24	05 06
25	44 09	16	43	37	46	11	15 01	16 01	37 18	03 42
27	43 56	14	32	34	38	14 04	14 54	15 53	38 18	02 18
29	43 46	14	21	31	30	13 57	46	46	39 18	17 00 54
31	11 43 39	13 07	12 09	18 28	20 21	13 50	14 39	15 38	5 40 18	16 59 42

Sun enters : Tula (Sid. Libra) 17th, 13*h* 53*m* **Trop. Scorpio 23rd, 22*h* 44*m*.**

New Moon—3rd, 24*h* 25*m* **First Quarter—10th, 18*h* 58*m*.**

EPHEMERIS 1st Oct. : Ayanamsa 23° 40′ 13″ **October, 1986**

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	বু ☿ बु	শু ♀ शु	ম ♂ म	বৃ ♃ बृ	শ ♄ श	হাঃ ♅ हा	नेः ♆ নেঃ	রা ☊ रा
	14 naks.	16 naks.	21 naks	25 naks.	17 naks.	18 naks.	19 naks.	27/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	6 1 55	6 22 56	9 2 06	10 *R* 21 39	7 11 43	7 25 11	8 9 26	11 27 16
2	3 24	23 24	2 37	21 33	11 47	25 13	9 27	27 14
3	4 52	23 50	3 07	21 26	11 52	25 14	9 28	27 13
4	n 6 19	24 15	3 38	21 20	11 57	25 16	9 28	27 12
5s	7 45	24 38	4 10	21 13	12 02	25 18	9 29	27 12
6	9 09	6 25 00	9 4 41	10 21 07	7 12 07	7 25 20	8 9 30	11 27 13
7	10 33	25 19	5 13	21 01	12 13	25 22	9 30	27 13
8	11 56	25 37	5 46	20 55	12 18	25 24	9 31	27 14
9	13 18	25 53	6 18	20 49	12 23	25 26	9 32	27 14
10	14 39	26 07	6 51	20 43	12 28	25 28	9 33	27 14
11	6 15 59	6 26 18	9 7 24	10 20 58	7 12 34	7 25 30	8 9 33	11 27 14
12s	17 18	26 28	7 58	20 33	12 39	25 32	9 34	27 14
13	18 35	26 35	8 32	20 27	12 45	25 35	9 35	27 14
14	n 19 51	26 40	9 06	20 22	12 50	25 37	9 36	27 14
15	21 05	R 26 43	n 9 40	20 18	12 56	25 39	9 37	27 14
16	6 22 18	6 26 43	9 10 14	10 20 13	7 13 02	7 25 42	8 9 38	11 27 14
17	23 29	26 42	10 49	20 09	13 08	25 44	9 39	27 14
18	24 39	26 37	11 24	20 04	13 13	25 46	9 40	27 14
19s	25 47	26 30	11 59	*n* 20 00	13 19	25 49	9 41	27 14
20	26 52	26 21	12 34	19 56	13 25	25 51	9 42	27 13
21	6 27 55e	6 26 10	9 13 10	10 19 52	7 13 31	7 25 54	8 9 43	11 27 13
22	28 56	25 56	13 46	19 49	13 37	25 56	9 45	27 12
23	6 29 53	25 39	14 22	19 45	13 43	25 59	9 46	27 10
24	7 0 48	25 21	14 58	19 42	13 49	26 02	9 47	27 09
25	1 39	25 00	15 34	19 39	13 55	26 04	9 48	27 09
26s	7 2 26	6 24 37	9 16 11	10 19 36	7 14 02	7 26 07	8 9 50	11 27 08
27	n 3 09	24 11s	16 48	19 34	14 08	26 10	9 51	27 09
28	3 47	23 44	17 24	19 31	14 14	26 13	9 52	27 10
29	4 20	23 15	18 02	19 29	14 21	26 15	9 54	27 11
30	4 48	22 45	18 39	19 27	14 27	26 18	9 55	27 12
31	7 5 09	6 22 13	9 19 16	10 19 25	7 14 33	7 26 21	8 9 56	11 27 13

1st Oct : ♅ Lat. 0°S 06′, Decli. 23° S 05′ ♆ Lat. 1° N 03′, Decli. 22°S21′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 naks.
	Lat.	Decl.	Lat.	Decli.	Lat.	Decli.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	0S50	10S40	5S53	22S26	3S29	24S25	1S30	7S10	1N38	19S36	6 12 27
3	1 05	11 58	6 04	22 52	24	24 08	30	15	37	38	12 31
5	1 19	13 12	14	23 16	19	23 51	30	20	37	40	12 36
7	1 33	14 24	24	23 37	14	23 33	30	25	36	43	12 40
9	1 47	15 32	33	23 55	09	23 14	30	29	36	45	12 45
11	2 00	16 36	40	24 09	3 04	22 55	29	33	36	47	12 49
13	2 12	17 37	46	24 20	2 59	22 35	29	37	35	49	12 54
15	2 24	18 33	51	24 26	54	22 14	29	40	35	51	12 59
17	2 34	19 25	6 53	24 28	2 49	21 53	1 28	7 44	1 35	19 53	6 13 03
19	2 43	20 13	54	24 26	44	21 31	28	47	34	56	13 08
21	2 51	20 55	53	24 19	40	21 08	28	49	34	19 58	13 13
23	2 57	21 31	48	24 06	35	20 45	27	52	34	20 00	13 18
25	3 01	22 01	42	23 48	30	20 22	26	54	34	02	13 23
27	3 01	22 23	32	23 25	26	19 57	26	55	33	05	13 28
29	2 59	22 38	19	22 56	21	19 32	26	57	33	07	13 32
31	2S53	22S43	6S03	22S23	2S17	19S07	1S26	7S58	1N33	20S09	6 13 37

1st : Rahu Decli. 8°N10′ PL : M. Pass. h 13-56, Lat. 15°N58′, Decli. 1°N33′

Full Moon—17th, 24*h* 52*m* Last Quarter—25th, 27*h* 56*m*

Date	Sidereal Time (Noon)	र ☉ व Longitude	☉ Decli.	च ☽ द Longitude	☽ Lat.	☽ Decli.	☽ M.Pas.	Nakṣatr.	Tithi	Ind. Dt.
		15 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 St	14 41 02	6 14 35 45	14S16	5 27 46 20	0S03	8S24	10 42	14	29	10
2 S	14 44 58	15 35 48	14 35	6 12 10 39	1 22	14 45	11 42	15	30	11
3 M	14 48 55	16 35 54	14 54	6 26 51 48	2 36	20 24	12 36	16	1	12
4 Tu	14 52 51	17 36 00	15 13	7 11 42 34	3 41	24 49	13 36	17	3	13
5 W	14 56 48	18 36 09	15 31	7 26 34 54	4 31	27 35	14 36	18	4	14
6 Th	15 00 44	6n19 36 19	15 50	8 11 21 03	5 03	28 23	15 48	19	5	15
7 F	15 04 41	20 36 31	16 08	8 25 54 26	5 14	27 12	16 48	20	6	16
8 St	15 08 37	21 36 44	16 25	9 10 10 37	5 06	24 15	17 48	22	7	17
9 S	15 12 34	22 36 59	16 43	9 24 07 18	4 40	19 56	18 42	23	8	18
10 M	15 16 31	23 37 15	17 00	10 7 44 08	3 58	14 41	19 24	24	9	19
11 Tu	15 20 27	6 24 37 33	17 17	10 21 02 12	3 05	8 52	20 12	25	10	20
12 W	15 24 24	25 37 52	17 33	11 4 03 21	2 03	2S47	20 54	26	11	21
13 Th	15 28 20	26 38 12	17 50	11 16 49 44	0S56	3N18	21 36	27	12	22
14 F	15 32 17	27 38 34	18 06	11 29 23 30	0N13	9 10	22 18	27	13	23
15 St	15 36 13	28 38 58	18 21	0 11 46 29	1 20	14 35	23 00	1	14	24
16 S	15 40 10	6 29 39 23	18 36	0 24 00 19	2 22	19 22	23 48	2	15	25
17 M	15 44 06	7 0 39 49	18 51	1 6 06 25	3 17	23 18	—	3	16	26
18 Tu	15 48 03	1 40 18	19 06	1 18 06 07	4 02	26 12	0 36	4	17	27
19 W	15 52 00	n 2 40 47	19 20	2 0 00 57	4 37	27 54	1 30	5	18	28
20 Th	15 55 56	3 41 19	19 34	2 11 52 46	5 00	28 19	2 18	6	19	29
21 F	15 59 53	7 4 41 52	19 48	2 23 43 55	5 09	27 25	3 12	7	20	30
22 St	16 03 49	5 42 27	20 01	3 5 37 22	5 06	25 17	4 00	8	20	1
23 S	16 07 46	6 43 04	20 14	3 17 36 43	4 49	22 01	4 48	9	21	2
24 M	16 11 42	7 43 42	20 27	3 29 46 05	4 19	17 47	5 36	9	22	3
25 Tu	16 15 39	8 44 22	20 39	4 12 10 02	3 36	12 43	6 18	10	23	4
26 W	16 19 35	7 9 45 03	20 51	4 24 53 12	2 42	7 01	7 00	11	24	5
27 Th	16 23 32	10 45 46	21 02	5 8 00 00	1 38	0N50	7 48	12	25	6
28 F	16 27 29	11 46 31	21 13	5 21 33 43	0N26	5S36	8 30	13	26	7
29 St	16 31 25	12 47 17	21 23	6 5 36 02	0S50	11 59	9 24	14	27	8
30 S	16 35 22	7 13 48 05	21S34	6 20 05 58	2S04	17S57	10 06	16	29	9

Lunar Kartika (Sukla) begins on 2nd, 11*h* 32*m*.

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages							S. Rise (Cal.) I. S. T.	S. Set (Cal.) I.S.T.
		☿	♀	♂	♃	♄	♅	♆		
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	11 43 37	13 04	12 03	18 26	20 17	13 46	14 35	15 34	5 40 54	16 59 06
3	43 35	12 56	11 51	23	09	39	28	27	42 00	57 54
5	43 36	46	39	20	20 01	33	21	19	43 06	56 54
7	43 41	34	27	18	19 54	26	13	11	44 12	55 54
9	43 49	18	15	15	46	19	14 06	15 04	45 24	55 00
11	44 00	12 01	11 03	12	38	12	13 58	14 56	46 36	54 06
13	44 14	11 44	10 51	09	30	13 05	51	48	47 48	53 24
15	44 32	26	40	06	22	12 58	44	41	49 06	52 42
17	11 44 53	11 11	10 30	18 04	19 15	12 51	13 36	14 33	5 50 24	16 52 12
19	45 18	10 57	20	18 01	07	44	29	26	51 42	51 42
21	45 46	46	11	17 58	19 00	37	21	18	53 00	51 18
23	46 17	39	10 03	55	18 52	30	14	10	54 18	51 00
25	46 51	33	9 55	52	45	24	13 07	14 03	55 42	50 48
27	47 29	30	48	50	37	17	12 59	13 55	57 00	50 48
29	48 09	28	41	47	30	10	52	48	58 24	50 48
30	11 48 30	10 28	9 38	17 45	18 26	12 06	12 48	13 44	5 59 00	16 50 48

Sun enters: Vrischika (Sid. Scorpio) 16th, 13*h*41*m* Trop. Sagittarius 22nd, 20*h*14*m*.

New Moon—2nd, 11*h* 32*m*

First Quarter—8th, 20*h* 41*m*.

EPHEMERIS 1st Nov. : Ayanamsa 23° 40′ 16″ November, 1986

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	मं ♂ मं	बृ ♃ बृ	श ♄ श	हा: ♅ हा:	ने: ♆ ने:	रा ☊ रा
	17 nakṣ.	16 nakṣ.	22 nakṣ.	24 nakṣ.	17 nakṣ.	18 nakṣ.	19 nakṣ.	27/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	7 5 23	6R21 39s	9 19 54	10R19 23	7 14 40	7 26 24	8 9 58	11 27 14
2s	R5 29	21 05	20 32	19 22	14 46	26 27	9 59	27 13
3	5 27	n 20 30	21 10	19 21	14 53	26 30	10 01	27 12
4	5 17	19 54	21 48	19 20	14 59	26 33	10 02	27 09
5	4 57	19☉18	22 26	19 19	15 06	26 36	10 04	27 07
6	7 4 27	6 18 41	9n23 04	10 19 18	7 15 13	7 26 39	8 10 06	11 27 04
7	n 3 48	18 05	23 43	19 18	15 19	26 42	10 07	27 01
8	2 58	17 29	24 21	D19 18	15 26	26 45	10 09	27 00
9s	2 00	16 53r	25 00	19 18	15 33	26 49	10 10	26 59
10	7 0 54	16 18	25 39	19 18	15 39	26 52	10 12	27 00
11	6 29 41	6 15 45	9 26 18	10 19 19	7 15 46	7 26 55	8 10 14	11 27 01
12	28 24	15 12	26 57	19 19	15 53	26 58	10 16	27 03
13	27☉04	14 42	27 36	19 20	16 00	27 01	10 17	27 04
14	25 44	14 12	28 16	19 21	16 07	27 05	10 19	27 05
15	24 26	13 45	28 55	19 22	16 14	27 08	10 21	27 04
16s	6 23 14	6 13 19	9 29 35	10 19 24	7 16 20	7 27 11	8 10 23	11 27 01
17	22 10	12 56	10 0 14	19 25	16 27	27 15	10 25	26 56
18	21 15r	12 35	0 54	19 27	n 16 34	27 18	10 26	26 50
19	n 20 30	12 16	1 34	19 29	16 41s	27 21	10 28	26 43
20	19 57	12 00	2 14	19 32	16 48	27 25	10 30	26 36
21	6 19 35	6 11 46	10 2 54	10 19 34	7 16 55	7 27 28	8 10 32	11 26 29
22	D19 26	11 34	3 34	19 37	17 02	27 32	10 34	26 24
23s	19 27	11 25	4 14	19 40	17 09	27 35	10 36	26 20
24	19 59	11 19	4 55	19 43	17 16	27 39	10 38	26 18
25	n 20 00	11 15	5 35	19 46	17 23	27 42	10 40	26 18
26	6 20 31	6D11 13	10n 6 15	10 19 49	7 17 30	7 27 46	8 10 42	11 26 19
27	21 09	11 14	6 56	19 53	17 37	27 49	10 44	26 20
28	21 55	11 18	7 36	n 19 57	17 45	27 53	10 46	26 21
29	22 47	11 23	8 17	20 01	17 52	27 56	10 48	26 21
30s	6 23 41e	6 11 31	10 8 58	10 20 05	7 17 59	7 28 00	8 10 50	11 26 18

1st. Nov : ♅ Lat. 0° S 06′, Decli. 23° S 11′ ♆ Lat. 1° N02′, Decli. 22° S 22′

Date	☿ Mercury		♀ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO. (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	2°S48′	22°S41′	5°S54′	22°S04′	2°S14′	18°S54′	1°S25′	7°S58′	1°N33′	20°S10′	6 13 40
3	2 34	22 28	5 33	21 23	10	18 28	25	59	32	13	13 45
5	2 14	22 02	5 10	20 39	06	18 01	25	59	32	15	13 49
7	1 48	21 21	4 44	19 52	2 02	17 33	24	59	32	17	13 54
9	1 15	20 24	4 17	19 03	1 57	17 05	24	59	32	19	13 59
11	0S37	19 13	3 47	18 13	53	16 37	23	58	32	22	14 04
13	0N04	17 52	3 17	17 24	49	16 08	23	57	31	24	14 09
15	0 45	16 31	2 46	16 37	45	15 39	22	56	31	26	14 13
17	1 21	15 18	2 15	15 51	1 41	15 09	1 22	7 54	1 31	20 28	6 14 18
19	1 50	14 21	1 45	15 09	37	14 38	21	52	31	30	14 23
21	2 11	13 45	1 15	14 31	34	14 08	21	50	31	33	14 27
23	2 24	13 30	0 47	13 57	30	13 36	20	47	31	35	14 32
25	2 30	13 34	0S19	13 28	26	13 05	20	45	30	37	14 37
27	2 30	13 53	0N06	13 04	23	12 33	20	41	30	39	14 41
29	2 26	14 25	0 31	12 44	19	12 01	19	38	30	41	14 46
30	2N23	14S45	0N42	12S36	1S17	11S44	1S19	7S36	1N30	20S42	6 14 48

1st : Rahu Decli. 8°N09′ PL : M. Pass. h 12-00, Lat. 15°N54′, Decli. 1°N06′

Full Moon—16th, 17*h* 42*m* Last Quarter—24th, 22*h* 20*m*

Date	Sidereal Time (Noon)	र ☉ स्र Longitude	☉ Decli.	च ☽ ट Longitude	☽ Lat.	☽ Decli.	☽ M. Pas	Naksatr.	Tithi	Ind. Dt.
		17 nakṣatra								
	h m s	s ° ′ ″	° ′	s ° ′ ″	° ′	° ′	h m			
1 M	16 39 18	7 14 48 54	21S43	7 4 59 19	3S13	22S59	11 12	17	30	10
2 Tu	16 43 15	n 15 49 45	21 53	7 20 08 34	4 08	26 34	12 24	18	1	11
3 W	16 47 11	16 50 36	22 02	8 5 23 41	4 47	28 13	13 24	19	2	12
4 Th	16 51 08	17 51 29	22 10	8 20 33 43	5 05	27 44	14 36	20	3	13
5 F	16 55 04	18 52 22	22 18	9 5 28 44	5 02	25 15	15 36	21	4	14
6 St	16 59 01	7 19 53 17	22 26	9 20 01 26	4 39	21 10	16 36	22	6	15
7 S	17 02 58	20 54 12	22 33	10 4 07 52	4 00	15 59	17 24	23	7	16
8 M	17 06 54	21 55 07	22 40	10 17 47 18	3 08	10 10	18 12	24	8	17
9 Tu	17 10 51	22 56 04	22 46	11 1 01 25	2 08	4S04	18 54	25	9	18
10 W	17 14 47	23 57 01	22 52	11 13 53 32	1S02	2N03	19 36	26	10	19
11 Th	17 18 44	7 24 57 59	22 57	11 26 27 33	0N04	7 56	20 18	27	11	20
12 F	17 22 40	25 58 57	23 02	0 8 47 31	1 10	13 25	21 00	1	12	21
13 St	17 26 37	26 59 56	23 07	0 20 57 03	2 11	18 19	21 48	2	12	22
14 S	17 30 33	28 00 56	23 11	1 2 59 15	3 05	22 25	22 36	3	13	23
15 M	17 34 30	7n29 01 56	23 15	1 14 56 33	3 51	25 33	23 24	4	14	24
16 Tu	17 38 27	8 0 02 57	23 18	1 26 50 47	4 26	27 32	—	5	15	25
17 W	17 42 23	1 03 59	23 20	2 8 43 26	4 50	28 15	0 18	6	16	26
18 Th	17 46 20	2 05 01	23 23	2 20 35 46	5 01	27 40	1 06	7	17	27
19 F	17 50 16	3 06 04	23 24	3 2 29 14	4 58	25 48	1 54	7	18	28
20 St	17 54 13	4 07 08	23 25	3 14 25 36	4 43	22 48	2 42	8	19	29
21 S	17 58 09	8 5 08 13	23 26	3 26 27 11	4 15	18 49	3 30	9	20	30
22 M	18 02 06	6 09 18	23 27	4 8 37 00	3 35	14 01	4 12	10	21	1
23 Tu	18 06 02	7 10 24	23 26	4 20 58 46	2 45	8 35	4 54	11	22	2
24 W	18 09 59	8 11 31	23 26	5 3 36 40	1 45	2N42	5 42	12	23	3
25 Th	18 13 55	9 12 38	23 25	5 16 35 13	0N39	3S28	6 24	13	24	4
26 F	18 17 52	8 10 13 46	23 23	5 29 58 33	0S32	9 41	7 12	14	25	5
27 St	18 21 49	11 14 55	23 21	6 13 49 46	1 43	15 39	8 00	15	26	6
28 S	18 25 45	12 16 04	23 19	6 28 09 59	2 50	20 58	8 54	16	27	7
29 M	18 29 42	n 13 17 14	23 16	7 12 57 09	3 48	25 10	9 54	17	28	8
30 Tu	18 33 38	14 18 24	23 12	7 28 05 35	4 31	27 42	11 06	18	29	9
31 W	18 37 35	8 15 19 35	23S08	8 13 26 02	4S56	28S10	12 12	20	30	10

Lunar Agraha (Sukla) begins on 1st, 22*h* 13*m* & Pausa (Sukla) on 31st, 8*h* 40*m*

Date	Appart. Noon L. M. T.	Local mean time of Meridian Passages ☿	♀	♂	♃	♄	♅	♆	S. Rise (Cal.) I.S.T.	S. Set. (Cal.) I.S.T.
	h m s	h m	h m	h m	h m	h m	h m	h m	h m s	h m s
1	11 48 52	10 28	9 35	17 44	18 22	12 03	12 45	13 40	5 59 42	16 50 54
3	49 38	30	30	41	15	11 56	37	33	6 01 06	51 00
5	50 26	32	24	38	08	49	30	25	02 24	51 18
7	51 17	34	20	36	18 01	42	23	18	03 42	51 42
9	52 09	38	16	33	17 54	35	15	10	05 00	52 12
11	53 03	41	12	30	46	29	08	13 02	06 18	52 42
13	53 59	45	08	27	39	22	12 01	12 55	07 30	53 24
15	54 56	50	05	24	32	15	11 53	47	08 42	54 06
17	11 55 54	10 54	9 02	17 22	17 25	11 08	11 46	12 40	6 09 54	16 54 54
19	56 53	10 59	8 59	19	18	11 01	39	32	11 00	55 42
21	57 52	11 04	57	16	12	10 54	31	25	12 00	57 12
23	58 52	09	55	13	17 05	47	24	17	13 00	57 42
25	11 59 51	14	54	10	16 58	40	17	10	14 00	58 42
27	12 00 51	20	52	07	51	34	09	12 02	14 48	16 59 54
29	01 50	25	51	05	44	27	11 02	11 55	15 36	17 01 00
31	12 02 48	11 31	8 50	17 02	16 38	10 20	10 55	11 47	6 16 24	17 02 18

Sun enters: Dhanus (Sid. Sagittari) 15th, 28*h* 20*m* Trop. Capricorn 22nd, 9*h* 32*m*

New Moon—1st, 22*h* 13*m* & 31st, 8*h* 40*m*.

First Quarter—8th, 13*h* 31*m*.

EPHEMERIS 1st Dec. : Ayanamsa 23° 40′ 21″ December, 1986

Nirayana Longitudes at 5-30 A.M. I.S.T.

Date	बु ☿ बु	शु ♀ शु	मं ♂ मं	बृ ♃ बृ	श ♄ श	हः ♅ हः	नेः ♆ नेः	रा ☊ रा
	16 nakṣ.	15 nakṣ.	24 nakṣ.	25 nakṣ.	18 nakṣ.	18 nakṣ.	19 nakṣ.	27/14n.
	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′	s ° ′
1	6 24 46	6 11 42	10 9 39	10 20 09	7 18 06s	7 28 03	8 10 52	11 26 14
2	25 52	11 54	10 19	20 14	18 13	28 07	10 54	26 07
3	27 02	12 09	11 00	20 19	18 20	28 11	10 56	25 59
4	28 15	12 25	11 41	20 24	18☌27	28 14	10 58	25 51
5	6 29 31	12 44	12 22	20 29	18 34	28 18	11 01	25 44
6	7 0 49	6 13 05	10 13 03	10 20 34	7 18 41	7 28 21	8 11 03	11 25 38
7s	n 2 09	13 27	13 45	20 40	18 49	28 25	11 05	25 34
8	3 30	13 52	14 26	20 45	18 56	28 29	11 07	25 33
9	4 53	14 18	15 07	20 51	19 03	28 32	11 09	25 33
10	6 18	14 46	15 48	20 57	19 10	28 36	11 11	25 34
11	7 7 43	6 15 15	10 16 30	10 21 03	7 19 17	7 28 40	8 11 14	11 25 34
12	9 09	15 46	17 11	21 10	19 24	28 43	11 16	25 34
13	10 36	16 19	17 52	21 16	19 31	28 47	11 18	25 30
14s	12 04	16 53	18 34	21 23	19 38	28☌50	11 20	25 24
15	13 33	17 29	19 15	21 30	19 45	28 54	11 22	25 15
16	7 15 02	6 18 06	10n19 57	10 21 37	7 19 52	7 28 58	8 11 25	11 25 04
17	n 16 31	18 44	20 38	21 44	19 59	29 01	11 27	24 51
18	18 01	n 19 23	21 20	21 52	20 06r	29 05	11 29	24 37
19	19 31	20 04	22 02	21 59	20 13	29 09	11 31	24 24
20	21 02	20 46	22 43	22 07	20 20	29 12	11 34	24 13
21s	7 22 33	6 21 29	10 23 25	10 22 15	7 20 27	7 29 16	8 11 36	11 24 04
22	24 04	22 13	24 07	22 22	20 34	29 20	11 38	23 58
23	25 35	22 58	24 48	22 31	20 41	29 23	11 40	23 55
24	27 07s	23 44	25 30	22 39	20 48	29 27	11 43	23 54
25	7n28 39	24 31	26 12	23 47	20 55	29 30	11 45	23 54
26	8 0 11	6 25 19	10 26 53	10 22 56	7 21 02	7 29 34	8 11 47	11 23 54
27	1 44	26 08	27 35	23 05	21 09	29 38	11☌49	23 53
28s	3 16	26 58	28 17	23 13	21 16	29 41	11 52	23 49
29	4 49	27 48	28 59	23 22	21 22	29 45	11 54	23 42
30	6 23	28 40	10 29 41	23 31	21 29	29 48	11 56	23 33
31	8 7 56	6 29 32	11 0 23	10 23 41	7 21 36	7 29 52	8 11 59	11 n23 22

1st Dec. : ♅ Lat. 0° S 06′, Decli. 23°S18′ ♆ Lat. 1°N01′, Decli. 22°S21′

Date	♀ Mercury		☿ Venus		♂ Mars		♃ Jupiter		♄ Saturn		PLUTO (Long.) 15 nakṣ.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	s ° ′
1	2N19	15S06	0N53	12S29	1S15	11S28	1S19	7S34	1N30	20S43	6 14 50
3	2 09	15 52	1 14	12 18	12	10 55	18	30	30	45	14 54
5	1 57	16 41	31	12 11	09	10 21	18	26	30	47	14 58
7	1 44	17 32	1 51	12 08	05	9 48	17	21	30	49	15 03
9	1 30	18 23	2 08	12 09	1 02	9 14	17	16	30	51	15 07
11	1 15	19 13	22	12 14	0 59	8 40	16	11	29	53	15 11
13	1 00	20 01	35	12 21	55	8 05	16	06	29	54	15 15
15	0 45	20 47	47	12 31	52	7 31	16	7 00	29	56	15 19
17	0 30	21 29	2 58	12 44	0 49	6 56	1 15	6 54	1 29	20 58	6 15 22
19	0 15	22 08	3 07	12 59	46	6 21	15	48	29	21 00	15 26
21	0N 01	22 43	15	13 16	43	5 46	14	42	29	01	15 29
23	0S 13	23 14	22	13 35	40	5 11	14	35	29	03	15 33
25	0 27	23 40	23	13 55	38	4 35	14	23	29	05	15 36
27	0 40	24 02	33	14 17	35	4 00	13	21	29	06	15 39
29	0 53	24 19	36	14 39	32	3 24	13	14	29	08	15 43
31	1S 04	24S30	3N 39	15S02	0S29	2S49	1S 12	6S07	1N29	21S09	6 15 46

1st: Rahu Decli. 7° N 48′ PL: M. Pass. h 10-06, Lat. 15°N57′, Decli. 0°N48′

Full Moon—16th, 12*h* 34*m* Last Quarter—24th, 14*h* 47*m*

Conjunctions and Oppositions of Planets with Sun, 1986

PLANET	Conjunction		Opposition (or Inf. Conj.*)	
	Date	Long. (D)	Date	Long. (R)
	h m	s ° ′	h m	s ° ′
Mercury	Feb. 1, 6 40 May 23, 6 54 Sept. 5, 23 04	9 18 13 1 9 07 4 19 11	Mar. 16, 25 03 July 23, 16 41 Nov. 15, 9 50	11 2 15 3 6 38 6 26 50
Venus	Jan. 19, 21 35	9 5 38	Nov. 5, 15 46	6 19 02
Mars	— —	—	July 10, 10 58	8 24 01
Jupiter	Feb. 18, 15 36	10 5 48	Sept. 10, 26 45	10 24 15
Saturn	Dec. 4, 21 26	7 18 32	May 28, 6 12	7 12 45
Uranus	Dec. 14, 26 12	7 25 39	June 11, 20 11	7 26 43
Neptune	Dec. 27, 19 34	8 9 52	June 26, 13 33	8 10 46
Pluto	Oct. 31, 6 07	6 13 37	Apr. 26, 17 50	8 12 18

*Inferior conjunction occurs in case of the inferior planets Mercury and Venus while they are retrograde coming between the Sun and the Earth.

Heliacal Setting or Combustion of Planets

(Calculated for the Central Station of India 23° 11′ North latitude)

PLANET	Retro. Inf. Planet & Sup. Planets			Direct Inferior Planet		
	Sets in the West	Rises in the East	Time	Sets in the East	Rises in the West	Time
	h m	h m	d	h m	h m	d
Mercur.	(85)Nov.22,15 47 Mar. 10, 16 55 July. 12, 9 37 Nov. 5, 15 36	Dec. 3, 24 46 Mar. 24, 18 35 July 31, 25 37 Nov. 18, 11 42	11 14 19 13	Jan. 12, 9 49 May, 8, 20 25 Aug. 26, 22 31 Dec. 24, 13 01	Feb.13, 29 21 May 31, 17 01 Sept.24, 19 45 87)Jan.27,23 58	32 23 29 34
Venus	— Oct. 27, 15 51	— Nov. 9, 16 33	13	85)Dec,23,15 50 —	Feb. 13, 27 18 —	52
Mars	—	—		—	—	—
Jupiter	Feb. 7, 12 44	Mar. 7, 12 16	28	—	—	—
Saturn	Nov. 19, 22 32	Dec. 18, 10 03	29	—	—	—

N.B.—Here East means the eastern horizon or west of the Sun and *vice versa.* The dates of last visibility (setting) and first visibility (rising) occurring before and after conjunction with the Sun have been marked in the daily ephemeris.

Solstices and Equinoxes

	Date	Sun	*Naks.*	Moon	*Naks.*	*Tithi*
	h m	s ° ′	°	s ° ′		
Winter Solstice	'85 Dec. 21, 27 38	8 6 20	19 II	0 7 33	1	11 Marg.
Vernal Equinox	'86 Mar. 20, 27 33	11 6 20	26 I	3 1 20	7	9 Phāl.
Summer Solstice	,, June 21, 22 00	2 6 19	5 IV	7 29 40	18	14 Jyaist
Autumnal Eqnx.	,, Sept. 23, 13 29	5 6 20	12 III	1 5 42	3	20 Asvn.
Winter Solstice	,, Dec. 22, 9 32	8 6 19	19 II	4 10 42	10	21 Paus.

Retrogression of Planets in 1986

PLANET	Retrograde		Direct		Retrogresn.	
	Date	Long.	Date	Long.	Time	Arc.
	h m	s ° ′	*h m*	s ° ′	*d*	° ′
Mercury	Mar. 7, 16 28	11 7 38	Mar. 30, 14 16	10 24 16	23	13 22
	July 9, 25 57	3 12 45	Aug. 3, 6 10	3 2 04	25	10 41
	Nov. 2, 12 04	7 5 29	Nov. 22, 14 40	6 19 26	20	16 03
Venus	Oct. 15, 22 01	6 26 43	Nov. 26, 8 20	6 11 13	42	15 30
Mars	June 8, 28 54	8 29 27	Aug. 12, 13 16	8 17 45	65	11 42
Jupiter	July 12, 22 31	10 29 11	Nov. 8, 14 57	10 19 18	119	9 53
Saturn	Mar. 19, 14 54	7 16 03	Aug. 7, 10 20	7 9 24	141	6 39
Uranus	Mar. 27, 19 47	7 28 43	Aug. 27, 26 47	7 24 41	153	4 02
Neptune	Apr. 7, 18 22	8 12 09	Sept. 14, 25 06	8 9 22	160	2 47
Pluto	Feb. 8, 25 51	6 13 42	July 15, 11 58	6 10 52	157	2 50

N.B.—The dates of retrogression and direction occurring before and after opposition or inferior conjunction have been marked in the daily ephemeris.

Longitudes of Mean Sun & Mean Rahu at 5-30 A.M.

Date	*Nirayaṇa* Mean Sun	*Nirayaṇa* Mean Rahu	Day of year	Date	*Nirayana* Mean Sun	*Nirayana* Mean Rahu	Day of year
	° ′ ″	s ° ′			° ′ ″	s ° ′	
JAN. 1	256 41 51	0 12 10	1	JULY 10	83 57 48	0 2 06	191
11	266 33 13	0 11 38	11	20	93 49 10	0 1 34	201
21	276 24 35	0 11 06	21	30	103 30 32	0 1 02	211
31	286 15 57	0 10 34	31	AUG. 9	113 31 54	0 0 30	221
FEB. 10	296 07 19	0 10 02	41	19	123 23 16	11 29 58	231
20	305 58 41	0 9 31	51	29	133 14 38	11 29 27	241
MAR. 2	315 50 03	0 8 59	61	SEPT. 8	143 05 59	11 28 55	251
12	325 41 25	0 8 27	71	18	152 57 21	11 28 23	261
22	335 32 47	0 7 55	81	28	162 48 43	11 27 51	271
APR. 1	345 24 09	0 7 24	91	OCT. 8	172 40 05	11 27 19	281
11	355 15 31	0 6 52	101	18	182 31 27	11 26 48	291
21	5 06 52	0 6 20	111	28	192 22 49	11 26 16	301
MAY 1	14 58 14	0 5 48	121	NOV. 7	202 14 11	11 25 44	311
11	24 49 36	0 5 16	131	17	212 05 33	11 25 12	321
21	34 40 58	0 4 45	141	27	221 56 55	11 24 40	331
31	44 32 20	0 4 13	151	DEC. 7	231 48 17	11 24 09	341
JUNE 10	54 23 42	0 3 41	161	17	241 39 39	11 23 37	351
20	64 15 04	0 3 09	171	27	251 31 01	11 23 05	361
30	74 06 26	0 2 37	181	31	255 27 33	11 22 52	365

Daily motion of Mean Sun is 0° 59′ 8″·193 and of Mean Rāhu is −3′·180

N. B.—*Nirayaṇa* mean Sun also serves the purpose of the fraction of the year expressed in days, 360 of which constitute a year. This may also be utilised in determining the true age of a person in terms of the fraction of a year. To obtain *Sāyana* mean Sun add 23° 40′ (mean ayanāṁśa) to the above, and to obtain fraction of the year from 1986·0 add 103° 40′.

ECLIPSES in 1986

[Given in Indian Standard Time]

	PARTIAL SOLAR ECLIPSE	TOTAL LUNAR ECLIPSE	Annu.-Total SOLAR ECLIPSE	TOTAL LUNAR ECLIPSE
	Apr. 9 Wednesday	Apr. 24 Thursday	Oct. 3 Friday	Oct. 17 Friday
	h m	h m	h m	h m
Eclipse begins * ...	9 40	16 33	22 27	22 59
Total or annu. begins...	—	17 40	24 26*	24 11
Maximum of eclipse ...	11 50	18 13	24 35	24 48
Total or annu. ends ...	—	18 45	24 46*	25 25
Eclipse ends ...	14 02	19 52	26 44	26 37
Total duration ...	4 22	3 19	4 17	3 38
Magnitude ...	0·824	1·208	1·001	1·250
	h m	h m	h m	h m
New-Moon or *F. Moon*	11 38	18 16	24 25	24 52
Moon's latitude ...	1° S 0′	0° S 23′	0° N 58′	0° N 18′
" longitude ...	11s25° 25′	6s10° 24′	5s16° 37′	0s 0° 26′
Moon—*Rahu* ...	349° 09′	184° 04′	169° 25′	3° 12′
	h m	h m	h m	h m
Conj. or *Oppo. in R.A.*	10 44	18 31	23 36	25 07
Moon's declination ...	6° N 21′	13° S 17′	2° S 57′	9° N 42′
Sun's declination ...	7° N 28′	12°N 52′	4° S 03′	9° S 22′
Moon's Parallax ...	55′ 02″	60′ 48″	58′ 35″	55′ 49″
Sun's Parallax ...	0′ 08″·8	0′ 08″·7	0′ 08″·8	0′ 08″·8
Moon's semi-diam. ...	15′ 00″	16′ 34″	15′ 58″	15′ 13″
Sun's semi-diameter ...	15′ 58″	15′ 54″	15′ 59″	16′ 03″
Radius of shadow ...	—	45′ 51″	—	40′ 37″
Visibility in India ...	Not Visible	Visible	Not Visible	Visible

*Relates to beginning and ending of Annularity. Totality from 24*h*27*m* to 24*h* 45*m*.

N.B.—The beginning and ending times of solar eclipses relate to the Earth as a whole and not to any particular locality.

VISIBILITY OF ECLIPSES

1. *Partial Solar Eclipse*, Apr. 9—Visible in part of Indonesia, Australia, New Guinea, South New Zealand and part of Antarctica.

2. *Total Lunar Eclipse*, Apr, 24—Visible in India and Asia, Eastern U. S. S. R., Australia, New Zealand, Pacific Ocean, Western half of North America, Western Alaska, Antarctica, Indian Ocean. Penumbral begins at 15*h* 35*m*, ends 20*h* 50*m*.

3. *Annular-Total Solar Eclipse*, Oct. 3-4—Visible in extreme North east Asia, North America except extreme South West, Arctic regions, Greenland, Iceland, extreme northern part of South America.

4. *Total Lunar Eclipse*, Oct. 17-18—Visible in India and Asia, Australia, New Zealand, western Pacific Ocean, Antarctica, Africa, Europe, Indian Ocean, Greenland, extreme North Eastern part of North America, eastern part of South America and Atlantic Ocean. Penumbral begins at 21*h* 50*m*, ends 27*h* 46*m*.

TRANSIT OF MERCURY

A transit of Mercury over the disc of the Sun will occur on Nov. 13, 1986 Thursday. The phenomenon is visible in India, Asia, part of Europe. Africa, Australia, New Zealand, Indian Ocean, Pacific Ocean, Atlantic Ocean. *Ingress* Exterior contact 7*h* 13*m*, *Egress* Exterior contact 12*h* 01*m* (At Calcutta, Bombay and Madras from 7*h* 14*m* to 12*h* 01*m*, Delhi from 7*h* 14*m* to 12*h* 02*m*). In all parts of India the visibility is from 7*h* 14*m* to 12*h* 02*m* I.S.T.

Daily motion of Moon (☽) in 1986

Date	January			March			May			July			September			November		
	°	′	″	°	′	″	°	′	″	°	′	″	°	′	″	°	′	″
1	13	16	16	14	11	24	13	28	27	11	56	13	12	27	12	14	24	28
2	13	29	39	14	09	45	13	07	23	11	50	03	12	42	27	14	41	10
3	13	44	09	14	06	43	12	48	42	11	48	03	12	57	53	14	50	46
4	13	59	37	14	02	28	12	32	44	11	49	26	13	12	41	14	52	22
5	14	15	08	13	56	48	12	19	36	11	53	28	13	26	09	14	46	07
6	14	29	17	13	49	24	12	09	05	11	59	25	13	37	55	14	33	24
7	14	40	00	13	39	50	12	00	58	12	06	45	13	47	52	14	16	09
8	14	45	10	13	27	55	11	54	00	12	15	05	13	56	11	13	56	42
9	14	42	58	13	13	55	11	51	06	12	24	18	14	02	57	13	36	50
10	14	32	45	12	58	20	11	49	12	12	34	35	14	08	19	13	18	04
11	14	15	07	12	42	03	11	49	33	12	46	17	14	12	05	13	01	09
12	13	51	58	12	26	17	11	52	24	12	59	54	14	13	45	12	46	24
13	13	25	56	12	12	03	11	58	07	13	15	43	14	12	46	12	33	44
14	12	59	44	12	00	31	12	07	10	13	33	50	14	08	29	12	22	59
15	12	35	41	11	52	35	12	19	52	13	53	48	14	00	28	12	13	51
16	12	15	36	11	48	58	12	36	28	14	14	28	13	48	46	12	06	06
17	12	00	33	11	50	11	12	57	00	14	33	54	13	33	46	11	59	42
18	11	51	02	11	56	26	13	20	53	14	49	30	13	16	30	11	54	50
19	11	47	10	12	07	43	13	47	03	14	58	36	12	58	09	11	51	49
20	11	48	37	12	23	38	14	14	02	14	59	02	12	40	01	11	51	09
21	11	54	50	12	43	23	14	39	06	14	49	58	12	23	28	11	53	27
22	12	04	55	13	05	52	14	59	24	14	32	13	12	09	38	11	59	20
23	12	17	53	13	29	17	15	12	07	14	08	05	11	59	21	12	09	23
24	12	32	27	13	51	53	15	15	07	13	40	35	11	53	19	12	23	57
25	12	47	29	14	11	29	15	07	46	13	12	44	11	51	54	12	43	11
26	13	01	50	14	26	26	14	51	05	12	47	03	11	55	17	13	06	47
27	13	14	44	14	35	32	14	27	34	12	25	17	12	03	20	13	33	43
28	13	25	51	14	38	20	14	00	21	12	08	28	12	15	43	14	02	19
29	13	35	13	14	35	22	13	32	23	11	56	58	12	31	41	14	29	56
30	13	43	19	14	27	32	13	06	08	11	50	43	12	50	21	14	53	20
31	13	50	44	14	16	13	12	43	11	11	49	22		—			—	

Date	February			April			June			August			October			December		
1	13	57	54	14	02	40	12	24	22	11	52	13	13	10	23	15	09	15
2	14	04	52	13	48	02	12	09	54	11	58	31	13	30	23	15	15	07
3	14	11	14	13	33	02	11	59	35	12	07	21	13	48	47	15	10	03
4	14	16	01	13	18	13	11	52	58	12	17	47	14	04	13	14	55	01
5	14	17	54	13	03	48	11	49	31	12	29	05	14	15	38	14	32	42
6	14	15	32	12	49	59	11	48	39	12	40	34	14	22	25	14	06	26
7	14	08	00	12	36	47	11	49	55	12	52	00	14	24	35	13	39	26
8	13	55	09	12	24	28	11	52	59	13	03	18	14	22	32	13	13	07
9	13	37	42	12	13	16	11	57	44	13	14	44	14	16	57	12	52	07
10	13	17	12	12	03	35	12	04	14	13	26	39	14	08	43	12	34	01
11	12	55	34	11	55	55	12	12	47	13	39	17	13	58	33	12	19	57
12	12	34	44	11	50	47	12	23	45	13	52	40	13	47	02	12	09	33
13	12	16	30	11	48	47	12	37	33	14	06	15	13	34	38	12	02	12
14	12	02	07	11	50	26	12	54	35	14	18	58	13	21	36	11	57	18
15	11	52	38	11	56	12	13	14	52	14	29	15	13	12	08	11	54	14
16	11	48	29	12	06	20	13	38	02	14	35	13	12	54	31	11	52	39
17	11	49	50	12	21	04	14	03	01	14	35	17	12	40	56	11	52	20
18	11	56	31	12	40	03	14	27	57	14	28	27	12	27	56	11	53	28
19	12	07	59	13	02	44	14	50	08	14	14	54	12	15	58	11	56	22
20	12	23	24	13	28	00	15	06	32	13	55	53	12	05	40	12	01	34
21	12	41	35	13	54	09	15	14	13	13	33	16	11	57	41	12	09	50
22	13	00	04	14	18	57	15	11	28	13	09	27	11	52	42	12	21	46
23	13	20	12	14	39	57	14	57	59	12	46	35	11	51	20	12	37	54
24	13	37	25	14	54	51	14	36	02	12	26	26	11	54	03	12	58	32
25	13	51	31	15	01	45	14	08	26	12	10	16	12	01	15	13	23	20
26	14	01	47	15	00	06	13	38	43	11	58	49	12	13	06	13	51	15
27	14	08	10	14	50	21	13	09	55	11	52	30	12	29	26	14	20	11
28	14	11	07	14	34	04	12	44	16	11	51	13	12	49	36	14	46	10
29		—		14	13	29	12	23	09	11	54	46	13	13	10	15	08	27
30		—		13	50	59	12	07	09	12	02	30	13	37	10	15	20	27
31		—			—					12	13	43	14	02	41	15	20	50

Daily motion of Mercury (☿) & Venus (♀) in 1986

Dt.	☿	♀	☿	♀	☿	♀	☿	♀	☿	♀	☿	♀
	January		March		May		July		September		November	
1	1°27′	1°15′	0°53′	1°15′	1°38′	1°13′	0°37′	1°10′	1°58′	0°55′	+06′	0°34′
2	1 27	1 16	0 44	1 15	1 39	1 13	0 33	1 09	1 58	0 55	−02	0 35
3	1 28	1 15	0 36	1 14	1 42	1 13	0 29	1 09	1 56	0 54	0 10	0 36
4	1 29	1 16	0 27	1 15	1 43	1 13	0 24	1 09	1 56	0 54	0 20	0 36
5	1 29	1 15	0 18	1 15	1 45	1 13	0 21	1 09	1 55	0 54	0 30	0 37
6	1 29	1 16	+11	1 15	1 47	1 12	0 15	1 09	1 54	0 52	0 39	0 36
7	1 30	1 15	−00	1 15	1 49	1 13	0 11	1 09	1 53	0 53	0 50	0 36
8	1 31	1 16	0 10	1 15	1 51	1 13	0 07	1 08	1 52	0 51	0 58	0 36
9	1 31	1 15	0 18	1 15	1 53	1 13	+01	1 09	1 51	0 51	1 06	0 35
10	1 31	1 16	0 26	1 15	1 54	1 12	−03	1 08	1 49	0 50	1 13	0 33
11	1 32	1 15	0 33	1 14	1 57	1 13	0 08	1 09	1 49	0 50	1 17	0 33
12	1 33	1 16	0 41	1 15	1 58	1 12	0 12	1 08	1 47	0 49	1 20	0 30
13	1 32	1 15	0 45	1 15	2 00	1 13	0 17	1 08	1 47	0 48	1 20	0 30
14	1 34	1 16	0 49	1 14	2 02	1 12	0 21	1 08	1 45	0 47	1 18	0 27
15	1 34	1 15	0 53	1 15	2 03	1 13	0 26	1 07	1 44	0 46	1 12	0 26
16	1 34	1 15	0 56	1 14	2 05	1 12	0 29	1 08	1 43	0 46	1 04	0 23
17	1 35	1 16	0 56	1 15	2 07	1 12	0 33	1 07	1 42	0 45	0 55	0 21
18	1 35	1 15	0 56	1 14	2 08	1 12	0 36	1 08	1 41	0 43	0 45	0 19
19	1 36	1 16	0 55	1 15	2 09	1 13	0 39	1 07	1 40	0 43	0 33	0 16
20	1 36	1 15	0 52	1 14	2 10	1 12	0 40	1 07	1 39	0 42	0 22	0 14
21	1 37	1 16	0 48	1 14	2 10	1 12	0 41	1 07	1 38	0 41	−09	0 12
22	1 38	1 15	0 45	1 15	2 12	1 12	0 42	1 07	1 37	0 40	+01	0 09
23	1 38	1 15	0 39	1 15	2 11	1 12	0 42	1 06	1 36	0 38	0 12	0 06
24	1 39	1 16	0 34	1 14	2 12	1 12	0 40	1 07	1 35	0 38	0 21	0 04
25	1 39	1 15	0 29	1 15	2 12	1 12	0 39	1 06	1 34	0 36	0 31	−02
26	1 40	1 16	0 22	1 14	2 11	1 11	0 37	1 06	1 34	0 35	0 38	+01
27	1 41	1 15	0 17	1 14	2 10	1 12	0 33	1 06	1 32	0 34	0 46	0 04
28	1 42	1 15	0 11	1 14	2 09	1 12	0 30	1 06	1 31	0 32	0 52	0 05
29	1 42	1 16	−05	1 14	2 08	1 12	0 25	1 06	1 31	0 31	0 57	0 08
30	1 42	1 15	+01	1 14	2 06	1 11	0 21	1 05	1 29	0 30	1 02	0 11
31	1 44	1 15	0 06	1 15	2 05	1 12	0 15	1 05	—	—	—	—
	February		April		June		August		October		December	
1	1°44′	1°16′	0°12′	1°14′	2°03′	1°11′	0°09′	1°05′	1°29′	0°28′	1°06′	0°12′
2	1 44	1 15	0 17	1 14	2 00	1 12	−03	1 05	1 28	0 26	1 10	0 15
3	1 46	1 15	0 22	1 14	1 59	1 11	+03	1 05	1 27	0 25	1 13	0 16
4	1 46	1 15	0 26	1 14	1 56	1 11	0 09	1 04	1 26	0 23	1 16	0 19
5	1 47	1 15	0 31	1 13	1 54	1 12	0 16	1 05	1 24	0 22	1 18	0 21
6	1 47	1 16	0 35	1 14	1 51	1 11	0 23	1 04	1 24	0 19	1 20	0 22
7	1 48	1 15	0 39	1 14	1 49	1 11	0 29	1 03	1 23	0 18	1 21	0 25
8	1 48	1 15	0 42	1 14	1 46	1 11	0 36	1 04	1 22	0 16	1 23	0 26
9	1 49	1 16	0 47	1 14	1 44	1 11	0 42	1 03	1 21	0 14	1 25	0 28
10	1 49	1 15	0 49	1 14	1 41	1 11	0 49	1 04	1 20	0 11	1 25	0 29
11	1 49	1 15	0 53	1 13	1 39	1 11	0 56	1 02	1 19	0 10	1 26	0 31
12	1 49	1 15	0 56	1 14	1 36	1 11	1 01	1 03	1 17	0 07	1 27	0 33
13	1 50	1 16	0 59	1 14	1 33	1 11	1 08	1 02	1 16	0 05	1 28	0 34
14	1 48	1 15	1 01	1 13	1 31	1 11	1 14	1 03	1 14	0 03	1 29	0 36
15	1 49	1 15	1 05	1 14	1 28	1 10	1 19	1 01	1 13	+00	1 29	0 37
16	1 47	1 15	1 07	1 14	1 25	1 11	1 25	1 02	1 11	−01	1 29	0 38
17	1 46	1 15	1 10	1 13	1 22	1 10	1 29	1 01	1 10	0 05	1 30	0 39
18	1 45	1 16	1 11	1 14	1 20	1 11	1 34	1 01	1 08	0 07	1 30	0 41
19	1 43	1 16	1 14	1 13	1 17	1 10	1 39	1 01	1 05	0 09	1 31	0 42
20	1 40	1 15	1 17	1 13	1 14	1 10	1 42	1 00	1 03	0 11	1 31	0 43
21	1 38	1 15	1 18	1 14	1 11	1 10	1 46	1 00	1 01	0 14	1 31	0 44
22	1 34	1 15	1 20	1 13	1 08	1 10	1 48	0 59	0 57	0 17	1 31	0 45
23	1 30	1 15	1 23	1 13	1 05	1 10	1 52	0 59	0 55	0 18	1 32	0 46
24	1 25	1 15	1 24	1 14	1 01	1 10	1 53	0 59	0 51	0 21	1 32	0 47
25	1 20	1 15	1 27	1 13	0 59	1 10	1 55	0 59	0 47	0 23	1 32	0 48
26	1 14	1 15	1 28	1 13	0 55	1 10	1 57	0 57	0 43	0 26	1 33	0 49
27	1 08	1 15	1 31	1 13	0 52	1 09	1 57	0 58	0 38	0 27	1 32	0 50
28	1 00	1 15	1 32	1 13	0 48	1 10	1 58	0 58	0 33	0 29	1 33	0 50
29	—	—	1 34	1 13	0 45	1 09	1 59	0 56	0 28	0 30	1 34	0 52
30	—	—	1 36	1 13	0 40	1 09	1 58	0 57	0 21	0 32	1 33	0 52
31	—	—	—	—	—	—	1 58	0 56	0 14	0 34	1 34	0 53

Daily motion of Planets in 1986

(Actual motion at intervals of 4 days)

Date	⊙	♂	♃	♄	♅	☊	Date	⊙	♂	♃	♄	♅	☊
	′ ″	′	′	′	′	′		′ ″	′	′	′	′	′
Jan. 1	61 08	36	13	6	4	-5	July 4	57 14	16	2	-3	-3	-9
5	61 10	37	14	6	4	0	8	57 14	17	1	2	2	13
9	61 10	37	13	6	3	7	12	57 14	18	+0	2	2	3
13	61 08	36	13	5	3	9	16	57 14	17	-0	2	2	1
17	61 06	36	14	5	3	1	20	57 14	16	1	2	2	11
21	61 01	36	14	5	3	5	24	57 17	14	2	1	2	6
25	60 58	36	14	5	3	5	28	57 21	12	3	1	2	0
29	60 55	36	15	4	3	7	Aug. 1	57 25	8	3	1	1	8
Feb. 2	60 53	35	14	4	2	1	5	57 29	6	4	-0	1	12
6	60 49	36	15	4	2	10	9	57 33	-3	5	+0	1	3
10	60 44	35	14	4	2	10	13	57 37	+1	6	1	1	1
14	60 38	34	15	3	2	0	17	57 41	4	6	1	0	8
18	60 30	35	14	3	2	3	21	57 46	8	7	1	1	-5
22	60 24	34	15	3	2	10	25	57 52	11	7	2	1	+1
26	60 17	34	14	3	1	-5	29	57 59	13	7	2	-0	-4
Mar. 2	60 11	33	15	2	1	+1	Sept. 2	58 07	16	8	1	+0	7
6	60 05	33	14	2	2	-6	6	58 14	19	8	3	1	-1
10	59 58	32	14	1	0	6	10	58 20	21	8	4	0	+0
14	59 49	32	14	1	1	0	14	58 25	24	8	3	1	-3
18	59 41	32	14	+1	1	0	18	58 33	25	8	4	1	-2
22	59 31	32	13	-0	0	5	22	58 41	27	7	4	2	+1
26	59 24	31	14	0	+0	-1	26	58 50	28	8	5	1	+0
30	59 16	30	14	1	-1	+2	30	58 59	30	7	5	2	-2
Apr. 3	59 09	29	14	2	1	-1	Oct. 4	59 07	32	7	5	2	-0
7	59 01	28	13	1	1	-2	8	59 15	32	6	5	2	+0
11	58 54	27	12	2	0	+1	12	59 22	34	6	6	3	+0
15	58 45	26	12	3	1	1	16	59 29	35	4	6	2	-0
19	58 35	25	12	3	1	+0	20	59 37	36	4	6	3	0
23	58 28	24	12	3	1	-0	24	59 46	36	3	6	2	-0
27	58 20	23	12	4	2	1	28	59 55	38	2	7	2	+1
May 1	58 14	21	11	3	1	-0	Nov. 1	60 03	38	1	7	2	-1
5	58 03	20	11	4	2	+2	5	60 10	39	-1	6	3	3
9	58 02	19	10	4	2	-2	9	60 16	39	+0	6	3	-1
13	57 55	16	10	5	2	4	13	60 22	40	1	7	4	+1
17	57 48	15	10	5	2	0	17	60 29	40	2	7	3	-6
21	57 42	12	8	4	2	0	21	60 35	40	3	7	4	-5
25	57 37	10	8	4	2	5	25	60 41	40	3	7	4	+1
29	57 32	7	8	5	2	-1	29	60 48	41	4	7	4	-3
June 2	57 30	5	7	5	2	+1	Dec. 3	60 53	41	5	7	3	8
6	57 26	+1	6	4	3	-5	7	60 55	41	5	7	4	1
10	57 22	-1	6	5	3	9	11	60 58	41	7	7	3	0
14	57 19	4	5	4	2	1	15	61 01	42	7	7	4	11
18	57 15	7	5	4	2	1	19	61 04	41	8	7	3	11
22	57 13	9	4	4	3	9	23	61 07	42	7	7	4	1
26	57 13	12	4	3	2	5	27	61 09	42	8	7	3	4
30	57 13	14	2	-4	-3	-0	31	61 10	41	9	6	3	-12

Longitude of Sun at New-moon & Full-moon

At New-Moon				At Full-Moon				At New-Moon				At Full-Moon			
s	°	′		s	°	′		s	°	′		s	°	′	
8	26	18	Jan. 10	9	12	05	Jan. 26	2	21	08	July 7	3	4	43	July 21
9	26	19	Feb. 9	10	12	03	Feb. 24	3	19	22	Aug. 5	4	2	49	Aug. 19
10	26	04	Mar. 10	11	11	30	Mar. 26	4	17	48	Sept. 4	5	1	21	Sept. 18
11	25	25	Apr. 9	0	10	24	Apr. 24	5	16	37	Oct. 3	6	0	26	Oct. 17
0	24	21	May 8	1	8	45	May 23	6	15	51	Nov. 2	7	0	10	Nov. 16
1	22	52	June 7	2	6	46	June 22	7	15	31	Dec. 1	8	0	21	Dec. 16
								8	15	28	Dec. 31	9	0	57	Jan. 15 87)

Heliocentric Longitudes (*Nirayana*) of Planets in 1986

(At intervals of 8 days)

Date	♄		♃		♂		⊕		♀		♀ 4 days later		☿		☿ 4 days later	
	s	°	s	°	s	°	s	°	s	°	s	°	s	°	s	°
Jan. 1	7	8·3	10	1·5	5	15·7	2	16·6	8	6·1	8	12·5	6	17·9	6	29·6
9	7	8·5	10	2·2	5	19·3	2	24·8	8	18·8	8	25·1	7	10·9	7	21·9
17	7	8·7	10	2·9	5	23·0	3	2·9	9	1·4	9	7·8	8	2·9	8	14·1
25	7	9·0	10	3·6	5	26·7	3	11·1	9	14·1	9	20·4	8	25·8	9	8·2
Feb. 2	7	9·2	10	4·4	6	0·4	3	19·2	9	27·7	10	3·1	9	21·5	10	6·2
10	7	9·5	10	5·1	6	4·1	3	27·3	10	9·4	10	15·7	10	22·6	11	11·1
18	7	9·7	10	5·8	6	7·9	4	5·4	10	22·1	10	28·4	0	3·0	0	25·2
26	7	10·0	10	6·5	6	11·8	4	13·4	11	4·8	11	11·2	1	20·0	2	15·2
Mar. 6	7	10·2	10	7·2	6	15·6	4	21·5	11	17·5	11	23·9	3	9·2	4	0·9
14	7	10·5	10	7·9	6	19·6	4	29·5	0	0·3	0	6·7	4	20·2	5	7·1
22	7	10·7	10	8·6	6	23·5	5	7·4	0	13·1	0	19·5	5	22·1	6	5·6
30	7	11·0	10	9·3	6	27·5	5	15·3	0	25·9	1	2·3	6	18·0	6	29·7
Apr. 7	7	11·2	10	10·1	7	1·6	5	23·2	1	8·7	1	15·2	7	11·0	7	22·0
15	7	11·4	10	10·8	7	5·7	6	1·1	1	21·6	1	28·1	8	3·0	8	14·2
23	7	11·7	10	11·5	7	9·9	6	8·9	2	4·5	2	11·0	8	25·9	9	8·3
May 1	7	11·9	10	12·2	7	14·2	6	16·7	2	17·5	2	23·9	9	21·6	10	6·3
9	7	12·2	10	12·9	7	18·5	6	24·4	3	0·4	3	6·9	10	22·8	11	11·3
17	7	12·4	10	13·6	7	22·8	7	2·2	3	13·4	3	19·9	0	2·2	0	25·4
25	7	12·7	10	14·4	7	27·3	7	9·8	3	26·4	4	2·9	1	20·2	2	15·4
June 2	7	12·9	10	15·1	8	1·8	7	17·5	4	9·4	4	15·9	3	9·4	4	1·1
10	7	13·1	10	15·8	8	6·3	7	25·2	4	22·4	4	28·9	4	20·3	5	7·2
18	7	13·4	10	16·5	8	10·9	8	2·8	5	5·4	5	11·9	5	22·2	6	5·7
26	7	13·6	10	17·2	8	15·6	8	10·5	5	18·3	5	24·8	6	18·1	6	29·8
July 4	7	13·9	10	18·0	8	20·3	8	18·1	6	1·2	6	7·7	7	11·1	7	22·1
12	7	14·1	10	18·7	8	25·1	8	25·7	6	14·1	6	20·5	8	3·1	8	14·3
20	7	14·4	10	19·4	9	0·1	9	3·3	6	26·9	7	3·3	8	26·0	9	8·4
28	7	14·6	10	20·1	9	4·8	9	11·0	7	9·6	7	16·0	9	21·8	10	6·5
Aug. 5	7	14·9	10	20·9	9	9·7	9	18·6	7	22·3	7	28·7	10	22·9	11	11·4
13	7	15·1	10	21·6	9	14·7	9	26·3	8	5·0	8	11·4	0	2·4	0	25·6
21	7	15·3	10	22·3	9	19·7	10	4·0	8	17·7	8	24·0	1	21·4	2	15·6
29	7	15·6	10	23·0	9	24·7	10	11·7	9	0·3	9	6·7	3	9·5	4	1·3
Sept. 6	7	15·8	10	23·8	9	29·8	10	19·5	9	12·9	9	19·3	4	20·5	5	7·3
14	7	16·1	10	24·5	10	4·8	10	27·2	9	25·6	10	1·9	5	22·3	6	5·8
22	7	16·3	10	25·2	10	9·9	11	5·0	10	8·3	10	14·5	6	18·2	6	29·9
30	7	16·6	10	25·9	10	15·0	11	12·9	10	21·0	10	27·3	7	11·1	7	22·2
Oct. 8	7	16·8	10	26·7	10	20·1	11	20·8	11	3·7	11	10·1	8	3·2	8	14·4
16	7	17·0	10	27·4	10	25·1	11	28·7	11	16·4	11	22·8	8	26·1	9	8·5
24	7	17·3	10	28·1	11	0·2	0	6·6	11	29·2	0	5·6	9	21·9	10	6·6
Nov. 1	7	17·5	10	28·8	11	5·2	0	14·6	0	12·0	0	18·4	10	23·0	11	11·6
9	7	17·8	10	29·6	11	10·2	0	22·6	0	24·8	1	1·2	0	0·5	0	25·8
17	7	18·0	11	0·3	11	15·2	1	0·7	1	7·7	1	14·1	1	20·6	2	15·8
25	7	18·3	11	1·0	11	20·1	1	8·7	1	20·5	1	26·9	3	9·7	4	1·4
Dec. 3	7	18·5	11	1·8	11	25·0	1	16·9	2	3·4	2	9·9	4	20·6	5	7·4
11	7	18·7	11	2·5	11	29·8	1	25·0	2	16·3	2	22·8	5	22·4	6	5·9
19	7	19·0	11	3·2	0	4·6	2	3·1	2	29·3	3	5·8	6	18·3	7	0·0
27	7	19·2	11	4·0	0	9·3	2	11·3	3	12·3	3	18·8	7	11·2	7	22·2
32	7	19·4	11	4·4	0	12·2	2	16·4	3	20·4	—		7	25·0	—	

	Jan. 1		Feb. 22		Apr. 15		June 6		July 28		Sept. 18		Nov. 9		Dec. 31	
	s	°	s	°	s	°	s	°	s	°	s	°	s	°	s	°
URANUS	7	24·8	7	25·4	7	26·0	7	26·7	7	27·3	7	27·9	7	28·5	7	29·1
NEPTUNE	8	9·7	8	10·0	8	10·3	8	10·7	8	11·0	8	11·3	8	11·7	8	11·9
PLUTO	6	11·5	6	11·9	6	12·2	6	12·6	6	13·0	6	13·3	6	13·7	6	14·1

Right Ascension of Planets in 1986

(At intervals of 8 days)

Date	♄	♃	♂	☉	♀	♀ 4 days later	☿	☿ 4 days later
	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 1	16 14·3	21 23·8	14 33·9	18 44·7	18 25·4	18 47·3	17 29·1	17 54·4
9	16 17·7	21 30·7	14 53·1	19 19·8	19 9·2	19 30·9	18 20·6	18 47·5
17	16 20·8	21 37·8	15 12·4	19 54·4	19 52·4	20 13·7	19 14·8	19 42·4
25	16 23·7	21 45·0	15 31·8	20 28·2	20 34·6	20 55·3	20 10·3	20 38·4
Feb. 2	16 26·3	21 52·3	15 51·3	21 1·2	21 15·6	21 35·6	21 6·5	21 34·5
10	16 28·5	21 59·7	16 10·9	21 33·4	21 55·2	22 14·6	22 2·3	22 29·5
18	16 30·3	22 7·1	16 30·4	22 4·7	22 33·7	22 52·5	22 55·6	23 19·5
26	16 31·8	22 14·5	16 49·8	22 35·2	23 11·1	23 29·5	23 39·5	23 53·5
Mar. 6	16 32·8	22 21·8	17 8·9	23 5·2	23 47·7	0 5·9	23 59·8	23 57·6
14	16 33·3	22 28·9	17 27·8	23 34·7	0 24·0	0 42·2	23 48·4	23 35·7
22	16 33·4	22 36·0	17 46·2	0 3·9	1 0·3	1 18·6	22 24·0	23 16·6
30	16 33·0	22 42·8	18 4·1	0 33·1	1 36·9	1 55·5	23 14·8	23 18·4
Apr. 7	16 32·3	22 49·5	18 21·2	1 2·2	2 14·2	2 33·2	23 26·7	23 38·6
15	16 31·0	22 55·8	18 37·3	1 31·7	2 52·5	3 12·0	23 53·4	0 10·6
23	16 29·5	23 1·9	18 52·4	2 1·4	3 31·8	3 51·8	0 29·7	0 50·6
May 1	16 27·6	23 7·6	19 6·1	2 31·7	4 12·2	4 32·8	1 13·4	1 38·0
9	16 25·4	23 12·9	19 18·1	3 2·5	4 53·6	5 14·6	2 4·7	2 33·7
17	16 23·1	23 17·8	19 28·1	3 33·9	5 35·8	5 57·0	3 5·3	3 39·4
25	16 20·6	23 22·2	19 35·8	4 5·9	6 18·1	6 39·2	4 15·5	4 52·5
June 2	16 18·1	23 26·1	19 40·7	4 38·5	7 0·2	7 20·9	5 28·9	6 3·4
10	15 15·7	23 29·4	19 42·4	5 11·4	7 41·4	8 1·6	6 35·2	7 3·6
18	16 13·4	23 32·1	19 40·6	5 44·7	8 21·4	8 40·9	7 28·5	7 49·6
26	16 11·3	23 34·0	19 35·5	6 17·9	8 59·9	9 18·5	8 6·8	8 19·9
July 4	16 9·4	23 35·3	19 27·5	6 51·1	9 36·7	9 54·5	8 28·5	8 32·3
12	16 7·9	23 35·8	19 17·6	7 23·9	10 11·9	10 28·9	8 31·1	8 25·1
20	16 6·7	23 35 6	19 7·6	7 56·2	10 45·5	11 1·8	8 15·4	8 4·1
28	16 6·0	23 34·6	18 59·2	8 27·9	11 17·8	11 33·4	7 54·2	7 48·6
Aug. 5	16 5·6	23 32·8	18 53·6	8 59·0	11 48·8	12 3·9	7 49·3	7 57·3
13	15 5·7	23 30·4	18 51·9	9 29·5	12 18·8	12 33·4	8 12·6	8 34·5
21	16 6·2	23 27·4	18 54·1	9 59·4	12 47·8	13 1·9	9 1·4	9 31·3
29	16 7·1	23 23·9	19 0·0	10 28·7	13 15·7	13 29·2	10 2·1	10 32·4
Sept. 6	16 8·4	23 20·1	19 9·2	10 57·8	13 42·3	13 55·0	11 1·3	11 28·7
14	16 10·2	23 16·2	19 21·3	11 26·5	14 7·1	14 18·6	11 54·7	12 19·4
22	16 12·3	23 12·4	19 35·6	11 55·2	14 29·2	14 38·9	12 43·1	13 6·0
30	16 14·7	23 8·7	19 51·8	12 24·0	14 47·4	14 54·4	13 28·2	13 49·8
Oct. 8	16 17·5	23 5·5	20 9·3	12 53·1	14 59·7	15 2·9	14 10·9	14 31·4
16	16 20·6	23 2·9	20 27·8	13 22·6	15 3·8	15 2·2	14 51·0	15 9·2
24	16 23·9	23 1·0	20 47·1	13 52·7	14 58·2	14 51·9	15 25·3	15 37·8
Nov. 1	16 27·4	22 59·8	21 6·9	14 23·6	14 44·0	14 35·4	15 44·7	15 43·4
9	16 31·1	22 59·4	21 27·0	14 55·3	14 26·9	14 19·5	15 32·1	15 13·3
17	16 34·9	22 59·8	21 47·2	15 27·9	14 14·0	14 10·8	14 55·1	14 45·9
25	16 38·9	23 1·0	22 7·6	16 1·3	14 10·1	14 11·8	14 48·0	14 58·8
Dec. 3	16 42·9	23 3·0	22 27·9	16 35·6	14 15·7	14 21·6	15 15·4	15 35·7
11	16 46 9	23 5·7	22 48·3	17 10·6	14 29·3	14 38·4	15 58·1	16 22·1
19	16 50 9	23 9·1	23 8·6	17 45·9	14 48·9	15 0·6	16 47·2	17 13·2
27	16 54·8	23 13·2	23 28·8	18 21·4	15 13·4	15 27·0	17 39·9	18 7·1
32	16 57·2	23 15·9	23 41·5	18 43·6	15 30·6	—	18 14·0	—

	Jan. 1	Feb. 22	Apr. 15	June 6	July 28	Sept. 18	Nov. 9	Dec. 31
	h m	h m	h m	h m	h m	h m	h m	h m
URANUS	17 14·3	17 24·6	17 26·1	17 19·1	17 11·0	17 10·2	17 18·5	17 31·8
NEPTUNE	18 15·5	18 22·8	18 25·1	18 21·5	18 15·7	18 13·2	18 16·6	18 24·4
PLUTO	14 39·5	14 41·5	14 38·2	14 33·1	14 31·2	14 34·5	14 41·6	14 48·4

Navamsa Signs and their Lords

NAVAMSAS

Sign	1st 0° 0′ to 3°20′	2nd 3°20′ to 6°40′	3rd 6°40′ to 10°0′	4th 10°0′ to 13°20′	5th 13°20′ to 16°40′	6th 16°40′ to 20°0′	7th 20°0′ to 23°20′	8th 23°20′ to 26° 40	9th 26°40′ to 30°0′
0 Mesha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
1 Vrisha	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
2 Mithuna	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
3 Karkata	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
4 Simha	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
5 Kanya	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
6 Tula	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
7 Vriscika	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃
8 Dhanus	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃
9 Makara	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿	3 ☽	4 ☉	5 ☿
10 Kumbha	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃	0 ♂	1 ♀	2 ☿
11 Mina	3 ☽	4 ☉	5 ☿	6 ♀	7 ♂	8 ♃	9 ♄	10 ♄	11 ♃

The figure 0 means that the navamsa falls in the sign (Raśi) of Mesha, etc. The Lords of the navamsa signs are indicated by the planetary symbols.

INTERPOLATION

If *l* is the daily motion of the planet for the previous day, *m* that for the day in question, and *n* that for the following day, then $n-l$ is the double second difference used in this table. The correction obtained is of the sign opposite to that of $n-l$.

Correction due to second differences

Time interval		(n—l)									Time interval	
		4′	8′	16′	24′	32′	40′	48′	56′	64′		
h	m										h	m
0	00	0″	0″	0″	0′ 0″	0′ 0″	0′ 0″	0′ 0″	0′ 0″	0′ 0″	24	00
0	18	1	2	3	0 5	0 6	0 8	0 9	0 11	0 12	23	42
0	37	2	3	6	0 9	0 12	0 15	0 18	0 21	0 24	23	23
0	56	2	5	9	0 14	0 18	0 23	0 27	0 32	0 36	23	04
1	16	3	6	12	0 18	0 24	0 30	0 36	0 42	0 48	22	44
1	36	4	8	15	0 23	0 30	0 38	0 45	0 53	1 00	22	24
1	58	4	9	18	0 27	0 36	0 45	0 54	1 03	1 12	22	02
2	20	5	11	21	0 32	0 42	0 53	1 03	1 14	1 24	21	40
2	42	6	12	24	0 36	0 48	1 00	1 12	1 24	1 36	21	18
3	06	7	14	27	0 41	0 54	1 08	1 21	1 35	1 48	20	54
3	31	7	15	30	0 45	1 00	1 15	1 30	1 45	2 00	20	29
3	57	8	17	33	0 50	1 06	1 23	1 39	1 56	2 12	20	03
4	25	9	18	36	0 54	1 12	1 30	1 48	2 06	2 24	19	35
4	54	10	20	39	0 59	1 18	1 38	1 57	2 17	2 36	19	06
5	26	10	21	42	1 03	1 24	1 45	2 06	2 27	2 48	18	34
6	00	11	23	45	1 08	1 30	1 53	2 15	2 38	3 00	18	00
6	38	12	24	48	1 12	1 36	2 00	2 24	2 48	3 12	17	22
7	21	13	25	51	1 17	1 42	2 08	2 33	2 59	3 24	16	39
8	12	13	27	54	1 21	1 48	2 15	2 42	3 09	3 36	15	48
9	19	14	29	57	1 26	1 54	2 23	2 51	3 20	3 48	14	41
12	00	15	30	60	1 30	2 00	2 30	3 00	3 30	4 00	12	00

Kirtikant Sharma Collection, Nalagarh

Mean Places of STARS for 1986·0, *i.e.*, on Jan. 0, 20·9*h*, I.S.T.

N.B. Tropical or *Sāyana* long. = *Nirayaṇa* long. + 23° 39′ 40″·6 (*viz. Ayanāṁśa*)

STAR	Indian Name	Mag.	*Nirayaṇa* Longitude	Latitude	Right Ascension	Declination
			s ° ′ ″	° ′ ″	h m s	° ′ ″
β Arietis	*Aśvinī*	2·72	0 10 06 46	+ 8 29 12	1 53 51·8	+20 44 23
α Arietis	—	2·23	0 13 48 19	+ 9 57 53	2 06 22·9	+23 23 48
41 Arietis	*Bharaṇī*	3·68	0 24 20 48	+10 26 56	2 49 9·3	+27 12 13
Algol *1*	—	2·7v	1 2 18 40	+22 25 37	3 07 15·2	+40 54 09
Alcyone *2*	*Kṛttikā*	2·96	1 6 08 07	+ 4 02 58	3 46 39·0	+24 03 45
Aldebaran *3*	*Rohiṇī*	1·06	1 15 55 55	− 5 28 06	4 35 06·9	+16 28 55
Rigel *4*	—	0·34	1 22 58 20	−31 07 29	5 13 51·8	− 8 13 02
Bellatrix *5*	—	1·70	1 27 05 22	−16 49 04	5 24 22·7	+ 6 20 16
Capella *6*	*Brahmahṛd.*	0·21	1 28 00 03	+22 51 51	5 15 39·1	+45 59 05
β Tauri	*Agni*	1·78	1 28 43 04	+ 5 23 02	5 25 29·3	+28 35 48
ε Orionis	—	1·75	1 29 36 23	−24 30 30	5 35 30·1	− 1 12 37
λ Orionis	*Mṛgaśiras*	3·66	1 29 50 59	−13 22 17	5 34 21·9	+ 9 55 32
Polaris	*Dhruva*	2·1v	2 4 42 38	+66 05 59	2 17 19·8	+89 12 05
Betelguese *7*	*Ārdrā*	0·6v	2 4 53 51	−16 01 44	5 54 24·7	+ 7 24 19
Sirius *8*	*Lubdhaka*	−1·58	2 20 13 38	−39 36 08	6 44 31·8	−16 41 47
Canopus *9*	*Agastya*	−0·86	2 21 06 23	−75 49 32	6 23 38·5	−52 41 16
Castor *10*	—	1·99	2 26 23 03	+10 05 41	7 33 42·4	+31 55 12
Pollux *11*	*Punarvasu*	1·21	2 29 21 39	+ 6 40 59	7 44 27·6	+28 03 39
Procyon *12*	—	0·48	3 1 55 51	−16 01 00	7 38 34·1	+ 5 15 42
δ Cancri	*Puṣya*	4·17	3 14 51 52	+ 0 04 36	8 43 53·4	+18 12 23
ε Hydrae	*Āśleṣā*	3·48	3 18 29 20	−11 06 18	8 46 02·1	+ 6 28 15
α Cancri	"	4·27	3 19 47 05	− 5 04 54	8 57 43·3	+11 54 45
Dubhe *13*	*Kratu*	1·95	3 21 20 22	+49 40 46	11 02 44·9	+61 49 36
Regulus *14*	*Maghā*	1·34	4 5 58 23	+ 0 27 52	10 07 37·6	+12 02 09
δ Leonis	*P.Phalgunī*	2·58	4 17 27 30	+14 20 00	11 13 21·9	+20 36 02
Denebola *15*	*U.Phalgunī*	2·23	4 27 45 42	+12 16 04	11 48 20·6	+14 39 01
δ Corvi	*Hasta*	3·11	5 19 35 44	−12 11 42	12 29 08·2	−16 26 15
Spica *16*	*Citrā*	1·21	5 29 59 04	− 2 03 13	13 24 27·2	−11 05 19
Arcturus *17*	*Svātī*	0·24	6 0 22 36	+30 44 45	14 15 01·2	+19 15 17
α Libra	*Viśākhā*	2·90	6 21 13 33	+ 0 20 05	14 50 06·0	−15 59 03
β Centauri	—	0·86	6 29 56 11	−44 08 09	14 02 49·6	−60 18 21
α Centauri	—	0·06	7 5 38 31	−42 35 27	14 38 38·5	−60 46 42
δ Scorpii	*Anurādhā*	2·54	7 8 42 50	− 1 59 03	15 59 30·2	−22 34 57
Antares *18*	*Jyeṣṭhā*	1·2v	7 15 54 19	− 4 34 05	16 28 32·8	−26 24 06
λ Scorpii	*Mula*	1·71	8 0 43 43	−13 47 11	17 32 39·4	−37 05 40
δ Sagittarii	*P.Āṣāḍhā*	2·84	8 10 43 25	− 6 28 13	18 20 05·8	−29 50 06
ε Sagittarii	—	1·95	8 11 13 18	−11 02 59	18 23 14·6	−34 23 32
σ Sagittarii	*U.Āṣāḍhā*	2·14	8 18 31 41	− 3 26 51	18 54 23·8	−26 18 54
Vega *19*	*Abhijit*	0·14	8 21 27 29	+61 44 01	18 36 27·8	+38 46 12
Altair *20*	*Śravaṇa*	0·89	9 7 55 02	+29 18 15	19 50 05·9	+ 8 49 51
βCapricorni	—	3·25	9 10 11 24	+ 4 35 25	20 20 13·8	−14 49 34
β Delphini	*Dhaniṣṭhā*	3·72	9 22 29 05	+31 55 10	20 36 53·5	+14 32 46
α Delphini	—	3·86	9 23 31 27	+33 01 25	20 38 59·2	+15 51 44
Fomalhaut	*21)* —	1·29	10 10 00 06	−21 08 01	22 56 52·7	−29 41 48
Deneb *22*	—	1·33	10 11 28 30	+59 54 25	20 40 57·1	+45 13 48
λ Aquarii	*Śatabhiṣaj*	3·84	10 17 43 08	− 0 23 10	22 51 53·0	− 7 39 16
Achernar *23*	—	0·60	10 21 27 04	−59 22 39	1 37 11·7	−57 18 28
Markab *24*	*P.Bhādrap.*	2·57	10 29 37 44	+19 24 23	23 04 03·8	+15 07 47
β Pegasi	—	2·6v	11 5 31 02	+31 08 25	23 03 04·6	+28 00 25
γ Pegasi	*U.Bhādrap.*	2·87	11 15 17 58	+12 35 59	0 12 30·8	+15 06 21
α Andromed	—	2·15	11 20 27 08	+25 40 51	0 07 39·6	+29 00 48
ζ Piscium	*Revatī*	5·57	11 26 01 12	− 0 12 49	1 12 59·8	+ 7 29 56

1. β Persei.
2. η Tauri.
3. α Tauri.
4. β Orionis.
5. γ Orionis.
6. α Aurigae.
7. α Orionis.
8. α Canis Majoris.
9. α Carinæ.
10. α Geminorum.
11. β Geminorum.
12. α Canis Minoris.
13. α Ursæ Majoris.
14. α Leonis.
15. β Leonis.
16. α Virginis.
17. α Bootis.
18. α Scorpii.
19. α Lyræ.
20. α Aquilæ.
21. α Piscis Austrini
22. α Cygni.
23. α Eridani.
24. α Pegasi.

TITHI, NAKSHATRA & YOGA, 1986

The following table gives the ending moments of *Tithi*, *Nakshatra* and *Yoga* in I.S.T. for the year 1986. Time has as usual been recorded from 5ʰ 30ᵐ A.M. to 29ʰ 30ᵐ next morning within the same date

Date	Tithi			Nakshatra			Yoga		
JANUARY									
	T	*h*	*m*	*N*	*h*	*m*	*Y*	*h*	*m*
0	19	15	59	9	8	33	2	27	12
1	20	15	43	10	9	00	3	25	39
2	21	15	04	11	9	03	4	23	46
3	22	13	59	12	8	42	5	21	33
4	23	12	29	13	7	57	6	19	01
5s	24	10	34	14	6	47	7	16	09
„		…		15	29	14		…	
6	25	8	16	16	27	20	8	12	58
7	26	5	38	17	25	11	9	9	32
„	27	26	45		…			…	
8	28	23	43	18	22	53	10	5	55
„		…			…		11	26	13
9	29	20	43	19	20	35	12	22	31
10	30	17	52	20	18	27	13	18	58
11	1	15	21	21	16	40	14	15	42
12s	2	13	20	22	15	22	15	12	51
13	3	11	58	23	14	44	16	10	30
14	4	11	23	24	14	52	17	8	45
15	5	11	39	25	15	49	18	7	40
16	6	12	45	26	17	33	19	7	14
17	7	14	35	27	19	59	20	7	22
18	8	16	58	1	22	53	21	7	58
19s	9	19	40	2	26	01	22	8	51
20	10	22	24	3	29	07	23	9	51
21	11	24	54	4	—	—	24	10	46
22	12	27	00	4	7	58	25	11	27
23	13	28	34	5	10	23	26	11	47
24	14	—	—	6	12	17	27	11	42
25	14	5	34	7	13	38	1	11	12
26s	15	6	01	8	14	29	2	10	17
27	16	5	59	9	14	53	3	9	00
28	17	5	31	10	14	54	4	7	25
„	18	28	44		…			…	
29	19	27	39	11	14	37	5	5	33
„		…			…		6	27	28
30	20	26	20	12	14	05	7	25	13
31	21	24	49	13	13	20	8	22	47
FEBRUARY									
1	22	23	06	14	12	23	9	20	12
2s	23	21	12	15	11	15	10	17	28
3	24	19	03	16	9	26	11	14	36
4	25	16	55	17	8	58	12	11	37
5	26	14	37	18	6	53	13	8	32
„		…		19	29	16	14	29	26
6	27	12	18	20	27	42	15	26	23
7	28	10	05	21	26	19	16	23	28
8	29	8	05	22	25	14	17	20	47
9s	30	6	25	23	24	37	18	18	27
„	1	29	15		…			…	
10	2	28	42	24	24	34	19	16	33
11	3	28	52	25	25	12	20	15	11
12	4	—	—	26	26	32	21	14	22
13	4	5	45	27	28	33	22	14	07
14	5	7	21	1	—	—	23	14	23

Date	Tithi			Nakshatra			Yoga		
February—*contd.*									
	T	*h*	*m*	*N*	*h*	*m*	*Y*	*h*	*m*
15	6	9	31	1	7	09	24	15	03
16s	7	12	05	2	10	07	25	15	57
17	8	14	45	3	13	13	26	16	55
18	9	17	16	4	16	12	27	17	46
19	10	19	23	5	18	48	1	18	18
20	11	20	56	6	20	51	2	18	24
21	12	21	48	7	22	16	3	18	01
22	13	21	59	8	23	02	4	17	06
23s	14	21	32	9	23	11	5	15	41
24	15	20	32	10	22	48	6	13	49
25	16	19	06	11	21	59	7	11	35
26	17	17	20	12	20	53	8	9	03
27	18	15	21	13	19	34	9	6	19
„		…			…		10	27	27
28	19	13	14	14	18	09	11	24	31
MARCH									
1	20	11	05	15	16	42	12	21	35
2s	21	8	55	16	15	16	13	18	40
3	22	6	49	17	13	53	14	15	48
„	23	28	47		…			…	
4	24	26	52	18	12	36	15	13	00
5	25	25	05	19	11	25	16	10	18
6	26	23	30	20	10	24	17	7	44
„		…			…		18	29	19
7	27	22	09	21	9	36	19	27	08
8	28	21	08	22	9	04	20	25	12
9s	29	20	30	23	8	54	21	23	37
10	30	20	22	24	9	09	22	22	24
11	1	20	46	25	9	54	23	21	37
12	2	21	45	26	11	12	24	21	16
13	3	23	18	27	13	04	25	21	23
14	4	25	22	1	15	28	26	21	52
15	5	27	48	2	18	16	27	22	40
16s	6	—	—	3	21	19	1	23	38
17	6	6	25	4	24	23	2	24	35
18	7	8	58	5	27	14	3	25	23
19	8	11	12	6	—	—	4	25	50
20	9	12	55	6	5	38	5	25	49
21	10	13	57	7	7	26	6	25	14
22	11	14	14	8	8	30	7	24	05
23s	12	13	46	9	8	50	8	22	20
24	13	12	35	10	8	28	9	20	04
25	14	10	48	11	7	30	10	17	20
26	15	8	32	12	6	01	11	14	15
„		…		13	28	11		…	
27	16	5	55	14	26	08	12	10	55
„	17	27	06		…			…	
28	18	24	12	15	23	59	13	7	26
„		…			…		14	27	54
29	19	21	20	16	21	53	15	24	26
30s	20	18	37	17	19	56	16	21	05
31	21	16	08	18	18	13	17	17	57

Tithi, Nakshatra & Yoga. 1986

Date	Tithi			Nakshatra			Yoga		
				APRIL					
	T	h	m	N	h	m	Y	h	m
1	22	13	57	19	16	49	18	15	03
2	23	12	08	20	15	47	19	12	28
3	24	10	43	21	15	09	20	10	11
4	25	9	44	22	14	56	21	8	16
5	26	9	11	23	15	10	22	6	41
„		...			...		23	29	29
6s	27	9	06	24	15	50	24	28	38
7	28	9	29	25	16	59	25	28	09
8	29	10	20	26	18	34	26	28	02
9	30	11	38	27	20	35	27	28	15
10	1	13	23	1	23	01	1	28	46
11	2	15	30	2	25	47	2	—	—
12	3	17	54	3	28	47	2	5	33
13s	4	20	28	4	—	—	3	6	30
14	5	23	02	4	7	52	4	7	30
15	6	25	22	5	10	52	5	8	27
16	7	27	19	6	13	35	6	9	12
17	8	28	41	7	15	50	7	9	35
18	9	29	20	8	17	27	8	9	30
19	10	29	12	9	18	20	9	8	52
20s	11	28	17	10	18	27	10	7	37
21	12	26	37	11	17	49	11	5	44
„		...			...		12	27	16
22	13	24	19	12	16	30	13	24	17
23	14	21	29	13	14	37	14	20	52
24	15	18	16	14	12	17	15	17	07
25	16	14	50	15	9	41	16	13	11
26	17	11	18	16	6	58	17	9	10
„		...		17	28	18	18	29	12
27s	18	7	51	18	25	50	19	25	25
„	19	28	38		...			...	
28	20	25	46	19	23	43	20	21	55
29	21	23	23	20	22	03	21	18	47
30	22	21	33	21	20	57	22	16	06
				MAY					
1	23	20	21	22	20	27	23	13	55
2	24	19	47	23	20	36	24	12	15
3	25	19	52	24	21	23	25	11	05
4s	26	20	32	25	22	44	26	10	25
5	27	21	44	26	24	35	27	10	10
6	28	23	23	27	26	52	1	10	18
7	29	25	23	1	29	29	2	10	45
8	30	27	40	2	—	—	3	11	27
9	1	—	—	2	8	21	4	12	20
10	1	6	07	3	11	22	5	13	19
11s	2	8	39	4	14	27	6	14	21
12	3	11	10	5	17	28	7	15	20
13	4	13	30	6	20	19	8	16	12
14	5	15	34	7	22	50	9	16	49
15	6	17	11	8	24	54	10	17	06
16	7	18	13	9	26	23	11	16	57
17	8	18	35	10	27	10	12	16	16

Date	Tithi			Nakshatra			Yoga		
				May—contd.					
	T	h	m	N	h	m	Y	h	m
18s	9	18	12	11	27	13	13	15	00
19	10	17	03	12	26	31	14	13	08
20	11	15	10	13	25	06	15	10	39
21	12	12	37	14	23	04	16	7	37
„		...			...		17	28	06
22	13	9	31	15	20	34	18	24	13
23	14	6	01	16	17	43	19	20	04
„	15	26	15		...			...	
24	16	22	23	17	14	42	20	15	49
25s	17	18	37	18	11	42	21	11	34
26	18	15	06	19	8	55	22	7	30
„		...			...		23	27	45
27	19	12	01	20	6	31	24	24	25
„		...		21	28	38		...	
28	20	9	30	22	27	27	25	21	37
29	21	7	41	23	27	00	26	19	26
30	22	6	38	24	27	21	27	17	53
31	23	6	23	25	28	28	1	16	58
				JUNE					
1s	24	6	54	26	—	—	2	16	38
2	25	8	07	26	6	15	3	16	48
3	26	9	53	27	8	35	4	17	21
4	27	12	03	1	11	19	5	18	11
5	28	14	28	2	14	18	6	19	11
6	29	16	59	3	17	23	7	20	14
7	30	19	30	4	20	28	8	21	17
8s	1	21	55	5	23	26	9	22	14
9	2	24	09	6	26	14	10	23	03
10	3	26	06	7	28	45	11	23	41
11	4	27	44	8	—	—	12	24	03
12	5	28	56	8	6	57	13	24	06
13	6	—	—	9	8	44	14	23	46
14	6	5	37	10	9	59	15	22	58
15s	7	5	42	11	10	39	16	21	40
„	8	29	08		...			...	
16	9	27	52	12	10	40	17	19	40
17	10	25	56	13	10	00	18	17	26
18	11	23	23	14	8	40	19	14	30
19	12	20	18	15	6	44	20	11	05
„		...		16	28	18		...	
20	13	16	48	17	25	30	21	7	17
„		...			...		22	27	13
21	14	13	03	18	22	31	23	22	59
22s	15	9	12	19	19	32	24	18	46
„	16	29	26		...			...	
23	17	25	57	20	16	44	25	14	41
24	18	22	55	21	14	19	26	10	54
25	19	20	31	22	12	27	27	7	34
„		...			...		1	28	47
26	20	18	51	23	11	17	2	26	39
27	21	18	01	24	10	56	3	25	12
28	22	18	03	25	11	27	4	24	27
29s	23	18	55	26	12	46	5	24	19
30	24	20	29	27	14	49	6	24	42

Names of Tithis :—1 & 16 Pratipat, 2 & 17 Dvitīyā, 3 & 18 Tritīyā, 4 & 19 Caturthī, 5 & 20 Pañcamī, 6 & 21 Ṣaṣṭhī, 7 & 22 Saptamī, 8 & 23 Aṣṭamī, 9 & 24 Navamī, 10 & 25 Daśamī, 11 & 26 Ekādaśī, 12 & 27 Dvādaśī, 13 & 28 Trayodśi 14 & 29 Caturdaśī, 15 Paurṇamāsī (*full-moon*) & 30 Amāvasyā (*new-moon*). [Light-half (śuklapakṣa) from 1 to 15 and dark-half (kṛṣṇapakṣa) from 16 to 30]

Tithi, Nakshatra & Yoga, 1986

JULY

Date	Tithi			Nakshatra			Yoga		
	T	h	m	N	h	m	Y	h	m
1	25	22	35	1	17	26	7	25	23
2	26	25	00	2	20	23	8	26	28
3	27	27	33	3	23	29	9	27	34
4	28	—	—	4	26	34	10	28	37
5	28	6	03	5	—	—	11	—	—
6s	29	8	22	5	5	30	11	5	32
7	30	10	26	6	8	10	12	6	15
8	1	12	09	7	10	32	13	6	44
9	2	13	32	8	12	35	14	6	57
10	3	14	34	9	14	16	15	6	53
11	4	15	11	10	15	34	16	6	31
12	5	15	22	11	16	26	17	5	49
"		...			...		18	28	46
13s	6	15	05	12	16	50	19	27	18
14	7	14	16	13	16	43	20	25	24
15	8	12	55	14	16	03	21	23	04
16	9	11	01	15	14	50	22	20	17
17	10	8	35	16	13	07	23	17	05
18	11	5	43	17	10	58	24	13	33
"	12	26	29		...			...	
19	13	23	03	18	8	30	25	9	46
20s	14	19	34	19	5	52	26	5	50
"		...		20	27	13	27	25	55
21	15	16	10	21	24	44	1	22	07
22	16	13	04	22	22	38	2	18	36
23	17	10	25	23	21	03	3	15	30
24	18	8	23	24	20	09	4	12	57
25	19	7	06	25	20	03	5	11	00
26	20	6	39	26	20	47	6	9	44
27s	21	7	03	27	22	19	7	9	08
28	22	8	14	1	24	32	8	9	09
29	23	10	03	2	27	15	9	9	39
30	24	12	20	3	—	—	10	10	30
31	25	14	49	3	6	16	11	11	31

AUGUST

Date	Tithi			Nakshatra			Yoga		
	T	h	m	N	h	m	Y	h	m
1	26	17	17	4	9	19	12	12	33
2	27	19	33	5	12	14	13	13	26
3s	28	21	29	6	14	51	14	14	05
4	29	23	00	7	17	06	15	14	26
5	30	24	06	8	18	55	16	14	28
6	1	24	45	9	20	19	17	14	08
7	2	25	01	10	21	19	18	13	30
8	3	24	54	11	21	57	19	12	33
9	4	24	25	12	22	13	20	11	18
10s	5	23	34	13	22	08	21	9	46
11	6	22	21	14	21	41	22	7	56
12	7	20	47	15	20	52	23	5	49
"		...			...		24	27	23
13	8	18	51	16	19	42	25	24	41
14	9	16	34	17	18	11	26	21	42
15	10	14	01	18	16	24	27	18	29

August—*contd.*

Date	Titbi			Nakshatra			Yoga		
	T	h	m	N	h	m	Y	h	m
16	11	11	15	19	14	25	1	15	08
17s	12	8	22	20	12	20	2	11	41
18	13	5	30	21	10	17	3	8	17
"	14	26	48		...		4	29	02
19	15	24	24	22	8	26	5	26	02
20	16	22	28	23	6	56	6	23	25
21	17	21	07	24	5	56	7	21	17
22	18	20	27	25	5	33	8	19	43
23	19	20	33	26	5	52	9	18	44
24s	20	21	24	27	6	57	10	18	21
25	21	22	55	1	8	44	11	18	30
26	22	24	59	2	11	06	12	19	05
27	23	27	21	3	13	54	13	19	56
28	24	—	—	4	16	54	14	20	54
29	24	5	48	5	19	50	15	21	48
30	25	8	06	6	22	31	16	22	29
31s	26	10	03	7	24	48	17	22	51

SEPTEMBER

Date	Titbi			Nakshatra			Yoga		
	T	h	m	N	h	m	Y	h	m
1	27	11	31	8	26	34	18	22	48
2	28	12	26	9	27	48	19	22	20
3	29	12	49	10	28	31	20	21	26
4	30	12	40	11	28	45	21	20	08
5	1	12	04	12	28	35	22	18	29
6	2	11	05	13	28	04	23	16	33
7s	3	9	45	14	27	17	24	14	21
8	4	8	10	15	26	16	25	11	57
9	5	6	22	16	25	04	26	9	23
"	6	28	24		...			...	
10	7	26	17	17	23	44	27	6	40
"		...			...		1	27	51
11	8	24	04	18	22	17	2	21	56
12	9	21	48	19	20	47	3	22	00
13	10	19	32	20	19	16	4	19	03
14s	11	17	19	21	17	50	5	16	10
15	12	15	17	22	16	33	6	13	24
16	13	13	30	23	15	32	7	10	49
17	14	12	03	24	14	51	8	8	31
18	15	11	04	25	14	38	9	6	34
"		...			...		10	29	01
19	16	10	36	26	14	58	11	27	57
20	17	10	45	27	15	53	12	27	22
21s	18	11	32	1	17	24	13	27	15
22	19	12	55	2	19	30	14	27	35
23	20	14	50	3	22	05	15	28	14
24	21	17	07	4	24	57	16	29	06
25	22	19	34	5	27	55	17	—	—
26	23	21	58	6	—	—	17	6	01
27	24	24	04	6	6	46	18	6	49
28s	25	25	42	7	9	16	19	7	20
29	26	26	44	8	11	15	20	7	28
30	27	27	06	9	12	38	21	7	06

Names of Nakshatras :—1 Aśvinī, 2 Bharaṇī, 3 Kṛttikā, 4 Rohini, 5 Mṛgaśirṣa, 6 Ārdrā, 7 Punarvasu, 8 Puṣya, 9 Aśleṣā, 10 Maghā, 11 Pūrvaphalguni, 12 Uttarphal, 13 Hasta, 14 Citrā, 15 Svātī, 16 Viśākhā, 17 Anurādhā, 18 Jyeṣṭhā, 19 Mūla, 20 Purvāṣāḍhā, 21 Uttarāṣāḍhā, 22 Sravaṇa, 23 Dhaniṣṭhā (Śraviṣṭhā), 24 Satabhiṣaj, 25 Pūrvabhādrapadā, 26 Uttarabhādrapadā & 27 Revatī.

Tithi, Nakshatra & Yoga, 1986

OCTOBER

Date	Tithi			Nakshatra			Yoga		
	T	*h*	*m*	*N*	*h*	*m*	*Y*	*h*	*m*
1	28	26	47	10	13	26	22	6	14
„		...			...		23	28	50
2	29	25	52	11	13	27	24	26	57
3	30	24	25	12	12	58	25	24	38
4	1	22	31	13	12	00	26	21	59
5s	2	20	18	14	10	39	27	19	03
6	3	17	53	15	9	03	1	15	57
7	4	15	21	16	7	18	2	12	45
8	5	12	49	17	5	31	3	9	32
„		...		18	27	46		...	
9	6	10	21	19	26	09	4	6	23
„		...			...		5	27	20
10	7	8	03	20	24	44	6	24	26
11	8	5	57	21	23	34	7	21	45
„	9	28	08		...			...	
12s	10	26	36	22	22	41	8	19	19
13	11	25	26	23	22	09	9	17	08
14	12	24	38	24	21	59	10	15	14
15	13	24	15	25	22	13	11	13	40
16	14	24	19	26	22	53	12	12	26
17	15	24	52	27	24	00	13	11	34
18	16	25	53	1	25	35	14	11	03
19s	17	27	23	2	27	37	15	10	55
20	18	29	18	3	—	—	16	11	08
21	19	—	—	3	6	04	17	11	39
22	19	7	35	4	8	51	18	12	24
23	20	10	03	5	11	48	19	13	17
24	21	12	34	6	14	47	20	14	10
25	22	14	54	7	17	34	21	14	54
26s	23	16	50	8	19	58	22	15	21
27	24	18	13	9	21	48	23	15	23
28	25	18	54	10	22	57	24	14	53
29	26	18	49	11	23	21	25	13	48
30	27	17	57	12	23	01	26	12	06
31	28	16	23	13	21	59	27	9	49

NOVEMBER

Date	Tithi			Nakshatra			Yoga		
1	29	14	12	14	20	23	1	7	01
„		...			...		2	27	47
2s	30	11	32	15	18	20	3	24	14
3	1	8	31	16	15	59	4	20	28
„	2	29	19		...			...	
4	3	26	04	17	13	30	5	16	37
5	4	22	56	18	11	02	6	12	48
6	5	20	04	19	8	45	7	9	09
7	6	17	33	20	6	46	8	5	44
„		...		21	29	12	9	26	40
8	7	15	30	22	28	08	10	23	59
9s	8	13	59	23	27	36	11	21	45
10	9	13	01	24	27	37	12	19	56
11	10	12	37	25	28	09	13	18	34
12	11	12	44	26	29	12	14	17	36
13	12	13	22	27	—	—	15	17	01
14	13	14	26	27	6	40	16	16	45
15	14	15	53	1	8	33	17	16	47

November—*contd.*

Date	Tithi			Nakshatra			Yoga		
	T	*h*	*m*	*N*	*h*	*m*	*Y*	*h*	*m*
16s	15	17	42	2	10	45	18	17	05
17	16	19	48	3	13	16	19	17	35
18	17	22	09	4	16	01	20	18	17
19	18	24	39	5	19	57	21	19	07
20	19	27	13	6	21	57	22	20	00
21	20	—	—	7	24	53	23	20	50
22	20	5	41	8	27	37	24	21	32
23s	21	7	54	9	—	—	25	21	57
24	22	9	40	9	5	57	26	21	58
25	23	10	50	10	7	44	27	21	28
26	24	11	15	11	8	48	1	20	22
27	25	10	52	12	9	05	2	18	37
28	26	9	38	13	8	34	3	16	13
29	27	7	39	14	7	17	4	13	13
„	28	28	59	15	29	20		...	
30s	29	25	47	16	26	51	5	9	43

DECEMBER

Date	Tithi			Nakshatra			Yoga		
1	30	22	13	17	24	01	6	5	48
„		...			...		7	25	36
2	1	18	27	18	21	01	8	21	17
3	2	14	42	19	18	02	9	16	58
4	3	11	09	20	15	16	10	12	52
5	4	7	56	21	12	53	11	9	02
„	5	29	15		...			...	
6	6	27	13	22	11	04	12	5	38
„		...			...		13	26	46
7s	7	25	54	23	9	54	14	24	28
8	8	25	21	24	9	28	15	22	46
9	9	25	31	25	9	46	16	21	39
10	10	26	22	26	10	45	17	21	02
11	11	27	46	27	12	21	18	20	52
12	12	—	—	1	14	26	19	21	04
13	12	5	36	2	16	52	20	21	30
14s	13	7	45	3	19	34	21	22	08
15	14	10	06	4	22	25	22	22	53
16	15	12	35	5	25	20	23	23	41
17	16	15	06	6	28	17	24	24	31
18	17	17	37	7	—	—	25	25	19
19	18	20	03	7	7	12	26	26	02
20	19	22	18	8	9	59	27	26	35
21s	20	24	14	9	12	32	1	26	54
22	21	25	43	10	14	43	2	26	51
23	22	26	36	11	16	23	3	26	22
24	23	26	47	12	17	24	4	25	19
25	24	26	10	13	17	41	5	23	40
26	25	24	45	14	17	12	6	21	23
27	26	22	34	15	15	56	7	18	30
28s	27	19	42	16	13	58	8	15	02
29	28	16	20	17	11	26	9	11	07
30	29	12	35	18	8	30	10	6	52
„		...		19	29	21	11	26	26
31	30	8	40	20	26	11	12	21	58
„	1	28	46		...			...	
32	2	25	06	21	23	13	13	17	37

Names of Yogas :—1 Viṣkumbha, 2 Prīti, 3 Āyuṣmān, 4 Saubhāgya 5 Śobhana, 6 Atigaṇḍa, 7 Sukarmā, 8 Dhṛti, 9 Śūla, 10 Gaṇḍa, 11 Vṛddhi 12 Dhruva, 13 Vyāghāta, 14 Harṣaṇa, 15 Vajra, 16 Siddhi (Asṛk), 17 Vyatīpāta 18 Variyān, 19 Parigha, 20 Śiva, 21 Siddha, 22 Sādhya 23 Śubha, 24 Śukla (Sukra), 25 Brahma, 26 Indra & 27 Vaidhṛti.

Entrance of Sun (☉) into Nakshatras in 1986

The timings of Sun's entry into the different *nakshatra* divisions are given below in I.S.T. The timings of moon's *nakshatras* as given before, on the other hand, relate to its exit from those divisions.

Nakṣatra		*d*	*h*	*m*
21 Uttarāṣāḍhā	Jan.	10	26	21
22 Śravaṇa		23	28	38
23 Dhaniṣṭhā	Feb.	6	7	50
24 Śatabhiṣaj		19	12	16
25 Pūrvabhādrapadā	Mar.	4	18	39
26 Uttarabhādrapadā		17	27	01
27 Revatī		31	13	56
1 Aśvinī	April	13	27	12
2 Bharaṇī		27	19	06
3 Kṛttikā	May	11	13	14
4 Rohiṇī		25	9	29
5 Mṛgaśiras	June	8	7	21
6 Ārdrā		22	6	22
7 Punarvasu	July	6	5	58
8 Puṣya		19	29	28
9 Āśleṣā	Aug.	2	28	24
10 Maghā		16	26	01
11 Pūrvaphalgunī		30	22	01
12 Uttaraphalgunī	Sept.	13	15	48
13 Hasta		27	7	23
14 Citrā	Oct.	10	20	17
15 Svātī		25	6	52
16 Viśākhā	Nov.	6	14	56
17 Anurādhā		19	21	03
18 Jyeṣṭhā	Dec.	2	25	19
19 Mūla		15	28	20
20 Pūrvāṣāḍhā		29	6	35

Entrance of Moon (☽) into *Nirayaṇa* Signs in 1986

Enters:—	*d*	*h*	*m*	*d*	*h*	*m*	*d*	*h*	*m*	*d*	*h*	*m*	*d*	*h*	*m*
0 Meṣa				Mar.13	13	05	June 3	8	35	Aug.24	6	57	Nov.14	6	40
1 Vṛṣa				15	25	01	5	21	04	26	17	47	16	17	22
2 Mithuna				18	13	51	8	9	58	29	6	23	18	29	23
3 Karkaṭa				20	25	03	10	22	09	31	18	17	21	18	10
4 Siṃha				23	8	50	13	8	44	Sept.2	27	48	24	5	57
5 Kanyā	Jan. 2	15	00	25	13	10	15	16	43	5	10	44	26	14	57
6 Tulā	4	19	25	27	15	19	17	21	24	7	15	42	28	20	01
7 Vṛścika	6	21	20	29	16	24	19	22	56	9	19	23	30	21	31
8 Dhanus	8	22	53	31	18	13	21	22	31	11	22	17	Dec 2	21	01
9 Makara	10	23	58	Apr. 2	21	35	23	22	05	13	24	54	4	20	38
10 Kumbha	12	26	58	4	26	59	25	23	46	15	28	00	6	22	24
11 Mīna	15	9	30	7	10	39	27	29	14	18	8	39	8	27	37
0 Meṣa	Jan.17	19	59	Apr. 9	20	35	June30	14	49	Sept.20	15	53	Dec.11	12	21
1 Vṛṣa	20	8	48	12	8	31	July 2	27	09	22	26	07	13	23	31
2 Mithuna	22	21	14	14	21	23	5	16	03	25	14	26	16	11	52
3 Karkaṭa	25	7	21	17	9	19	7	27	58	27	26	41	18	24	29
4 Siṃha	27	14	53	19	18	20	10	14	16	30	12	38	21	12	32
5 Kanyā	29	20	31	21	23	33	12	22	34	Oct. 2	19	23	23	22	42
6 Tulā	31	24	53	23	25	30	14	28	27	4	23	22	26	5	33
7 Vṛścika	Feb. 2	28	17	25	25	39	17	7	36	6	25	45	28	8	31
8 Dhanus	5	6	53	27	25	50	19	8	30	8	27	46	30	8	30
9 Makara	7	9	20	29	27	43	21	8	34	11	6	25	Jan. 1	7	25
10 Kumbha	9	12	52	May 2	8	27	23	9	46	13	10	23			
11 Mīna	11	18	58	4	16	21	25	14	00	15	16	07			
0 Meṣa	Feb.13	28	33	May 6	26	52	July27	22	19	Oct.17	24	00			
1 Vṛṣa	16	16	53	9	15	05	30	9	59	20	10	12			
2 Mithuna	19	5	33	11	27	58	Aug. 1	22	49	22	22	19			
3 Karkaṭa	21	15	59	14	16	14	4	10	34	25	10	54			
4 Siṃha	23	23	11	16	26	23	6	20	19	27	21	48			
5 Kanyā	25	27	44	19	9	07	8	28	03	29	29	20			
6 Tulā	28	6	52	21	12	09	11	9	57	Nov. 1	9	15			
7 Vṛścika	Mar. 2	9	37	23	12	27	13	14	01	3	10	35			
8 Dhanus	4	12	36	25	11	42	15	16	24	5	11	02			
9 Makara	6	16	11	27	11	59	17	17	49	7	12	20			
10 Kumbha	8	20	56	29	15	07	19	19	38	9	15	48			
11 Mīna	10	27	40	31	22	07	21	23	35	11	21	58			

Entrance of Planets into Nirayana Signs in 1986

MERCURY (☿)

Enters :—

			d	h	m
Dhanus	on	Jan.	1	18	26
Makara	„	Jan.	21	8	50
Kumbha	„	Feb.	7	22	51
Mina	„	Feb.	25	8	47
Kumbha R	„	Mar.	19	11	00
Mina	„	Apr.	11	13	04
Mesha	„	May	3	27	40
Vrisha	„	May	19	14	52
Mithuna	„	June	2	13	56

Enters :—

			d	h	m
Karkata	on	June	20	22	06
Simha	„	Aug.	26	27	40
Kanya	„	Sept.	11	18	27
Tula	„	Sept.	29	22	40
Vrisikca	„	Oct.	23	8	29
Tula R	„	Nov.	10	23	18
Vriscika	„	Dec.	5	14	30
Dhanus	„	Dec.	25	26	36

VENUS (♀)

Enters :—

			d	h	m
Makara	on	Jan.	15	10	04
Kumbha	„	Feb.	8	7	19
Mina	„	Mar.	4	6	58
Mesha	„	Mar.	28	10	39
Vrisha	„	Apr.	21	20	06
Mithuna	„	May	16	12	56

Enters :—

			d	h	m
Karkata	on	June	10	18	36
Simha	„	July	6	8	51
Kanya	„	Aug.	1	28	39
Tula	„	Aug.	31	15	27
Vriscika	„	Dec.	31	18	17

MARS (♂)

Enters :—

			d	h	m
Vriscika	on	Jan.	22	20	19
Dhanus	„	Mar.	15	29	23
Makara	„	Sept.	26	22	27

Enters :—

			d	h	m
Kumbha	on	Nov.	16	20	46
Mina	„	Dec.	30	16	33

JUPITER in Makara enters Kumbha on Jan. 25, 7*h* 01*m*

SATURN remains in Vriscika during the year.

URANUS remains in Vriscika during the year.

NEPTUNE remains in Dhanus during the year.

PLUTO remains in Tula during the year.

RAHU (True) in Mesha enters Mina on Aug. 4, 25*h* 35*m*.

KETU (True) in Tula enters Kanya on Aug. 4, 25*h* 35*m*.

RAHU (Mean) in Mesha enters Mina on Aug. 18, 17*h* 15*m*.

KETU (Mean) in Tula enters Kanya on Aug. 18, 17*h* 15*m*.

Beginning of Nakshatra divisions & Vimsottari Dasa

Nakshatra	Long.			Viṃśottarī Daśa		Nakṣatra	Long.			Vimśottarī Daśa	
	s	°	′		yrs.		s	°	′		yrs.
1 Aśvinī	0	0	0	Ketu	7	15 Svati	6	6	40	Rāhu	18
2 Bharaṇī	0	13	20	Venus	20	16 Viśākhā	6	20	0	Jupiter	16
3 Kṛttikā	0	26	40	Sun	6	17 Anurādhā	7	3	20	Saturn	19
4 Rohiṇī	1	10	0	Moon	10	18 Jyeṣṭhā	7	16	40	Mercury	17
5 Mṛgaśiras	1	23	20	Mars	7	19 Mūla	8	0	0	Ketu	7
6 Ardra	2	6	40	Rāhu	18	20 Pūrvāṣāḍhā	8	13	20	Venus	20
7 Punarvasu	2	20	0	Jupter	16	21 Uttarāṣāḍhā	8	26	40	Sun	6
8 Puṣya	3	3	20	Saturn	19	22 Sravaṇa	9	10	0	Moon	10
9 Āśleṣā	3	16	40	Mercury	17	23 Dhaniṣṭhā	9	23	20	Mars	7
10 Maghā	4	0	0	Ketu	7	24 Śatabhiṣaj	10	6	40	Rāhu	18
11 P. Phalguni	4	13	20	Venus	20	25 P.Bhādrapad	10	20	0	Jupiter	16
12 U. Phalguni	4	26	40	Sun	6	26 U.Bhādrapad	11	3	20	Saturn	19
13 Hasta	5	10	0	Moon	10	27 Revatī	11	16	40	Mercury	17
14 Citrā	5	23	20	Mars	7	1 Aśvinī	12	0	0	Ketu	7

The ancient *Abhijit* nakṣatra extends from 9s 6° 40′ 0″ to 9s 10° 53′ 20″.

Entrance of Planets into Nakshatras in 1986

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MERCURY

Naks	Date	d	h	m
19	Jan.	1	18	26
20		10	17	37
21		19	6	57
22		27	10	51
23	Feb.	3	29	03
24		11	15	10
25		18	25	05
26		27	25	44
25R	Mar.	15	20	53
26	Apr.	14	24	28
27		25	16	12
1	May	3	27	40
2		11	11	36
3		17	25	22
4		23	29	02
5		30	8	33
6	June	5	23	51
7		13	17	36
8		23	19	39
7R	July	28	27	01
8	Aug.	7	26	22
9		19	20	46
10		26	27	40
11	Sept.	2	22	25
12		9	22	38
13		17	11	04
14		25	14	37
15	Oct.	4	11	28
16		14	8	29
17		27	12	19
16R	Nov.	7	18	56
15R		19	27	16
16		25	29	08
17	Dec.	7	26	29
18		17	7	53
19		25	26	36

VENUS

Naks.	Date	d	h	m
20	Jan.	1	28	09
21		12	18	28
22		23	8	59
23	Feb.	2	23	48
24		13	14	57
25		24	6	42
26	Mar.	6	23	08
27		17	16	22
1		28	10	39
2	Apr.	8	6	04
3		18	26	42
4		29	24	50
5	May	10	24	29
6		21	25	53
7	June	1	29	23
8		13	11	14
9		24	20	08
10	July	6	8	51
11		17	26	28
12		29	27	06
13	Aug.	11	13	39
14		24	16	20
15	Sept.	7	25	04
16		25	20	13
15R	Nov.	3	25	23
16	Dec.	18	27	11

RAHU (Mean)

Naks.	Date	d	h	m
27R	Aug.	18	17	15

KETU (Mean)

Naks.	Date	d	h	m
14R	Apr.	14	21	56
13R	Dec.	22	12	34

MARS

Naks.	Date	d	h	m
16	Jan.	6	7	01
17		28	10	20
18	Feb.	19	29	26
19	Mar.	15	29	23
20	Apr.	11	19	40
21	May	18	7	16
20R	June	30	17	38
21	Sept.	19	13	28
22	Oct.	15	19	32
23	Nov.	6	15	21
24		26	20	08
25	Dec.	16	7	18

JUPITER

Naks.	Date	d	h	m
24	Feb.	22	6	21
25	Apr.	22	9	45
24R	Oct.	19	5	47
25	Nov.	28	24	58

SATURN

Naks.	Date	d	h	m
18	Nov.	18	25	15

URANUS

Naks.	Date
18	Remains during the year.

NEPTUNE

Naks.	Date
19	Remains during the year.

PLUTO

Naks.	Date
15	Remains during the year.

RAHU (True)

Naks.	Date	d	h	m
27R	Aug.	4	25	35

KETU (True)

Naks.	Date	d	h	m
14R	Mar.	21	29	17
13R	Dec.	31	8	26

Moon and Sun at Perigee and Apogee, 1986

Moon at Perigee

Date		Parallax	S. D.
Jan.	8 ...	60′ 20″	16′ 27″
Feb.	4 ...	59 26	16 12
Mar.	1 ...	59 23	16 11
Mar.	28 ...	60 13	16 24
Apr.	25 ...	60 56	16 36
May	24 ...	61 24	16 44
June	21 ...	61 15	16 42
July	20 ...	60 46	16 33
Aug.	16 ...	59 55	16 20
Sept.	12 ...	59 18	16 10
Oct.	7 ...	59 42	16 16
Nov.	4 ...	60 36	16 31
Dec.	2 ...	61 16	16 42
Dec.	31 ...	61 29	16 45

Moon at Apogee

Date		Parallax	S.D.
Jan.	20 ...	54′ 11″	14′ 46″
Feb.	17 ...	54 14	14 47
Mar.	17 ...	54 12	14 46
Apr.	13 ...	54 05	14 44
May	11 ...	53 58	14 42
June	7 ...	53 56	14 42
July	4 ...	54 00	14 43
Aug.	1 ...	54 07	14 45
Aug.	28 ...	54 15	14 47
Sept.	25 ...	54 15	14 47
Oct.	23 ...	54 08	14 45
Nov.	20 ...	54 00	14 43
Dec.	17 ...	53 57	14 42

Sun's Semi-diam.

At Perigee

Jan. 2 ... 16′ 18″

At Apogee

July 5 ... 15′ 45″

Mean values : Lunar Parallax = 57′ 02″·6, S. D. = 15′ 32″·6 ; Solar S.D. = 16′ 01″·2

Beginning of Vedic Solar months & Indian seasons, 1986

Month	Season	Date	Month	Season	Date
Tapas ...	Winter	Dec. 22 W. S.	Nabhas ...	Rains	June 21 S. S.
Tapasya ..	„	Jan. 20	Nabhasya	„	July 23
Madhu ...	Spring	Feb. 18	Iṣa ...	Autumn	Aug. 23
Mādhava	„	Mar. 20 V. E.	Urja ...	„	Sept. 23 A. E.
Śukra ...	Summer	Apr. 20	Sahas ...	*Hemanta*	Oct. 23
Śuci ...	„	May 21	Sahasya ...	„	Nov. 22
			Tapas ...	Winter	Dec. 22 W.S.

Uttarāyaṇa begins on 22nd December & Dakṣiṇāyana on 21st June.

First visibility of Moon after the new Moon day

The lunar crescent becomes first visible in the evening of the dates given below as calculated for the Central Station of India. The months of the Islamic calendar actually begin from the sunset times of those days, but are *taken to begin* from the *next day.*

Jan. 11 (Jamadul A)	June 8 (Shawwal)	Nov. 3 (Rabiul A)
Feb. 10 (Jamadus S)	July 8 (Zulqada)	Dec. 3 (Rabius S)
Mar. 12* (Rajab)	Aug. 7 (Zulhijja)	Jan. 1 (Jamadul A)
Apr. 10 (Shaban)	Sept. 5 (MUHARRAM)	Jan. 30 (Jamadus S)
May 10 (Ramadan)	Oct. 5 (Safar)	Mar. 1 (Rajab)

* In the southern and western parts of India, the Moon is likely to be visible one day earlier, i.e. on March 11.

KARAṆA

In each Tithi there are two *Karaṇas* covering the two halves of the tithimāna. The first karaṇa ends at the middle time of the tithi and the second karaṇa ends with the ending of that tithi.

Karanas within the Tithi

Tithi	1st Krn.	2nd Krn.	Tithi	1st Krn.	2nd Krn.	Tithi	1st Krn.	2nd Krn.	Tithi	1st Krn.	2nd Krn.
1	Kin.	1	9	2	3	16	2	3	24	4	5
2	2	3	10	4	5	17	4	5	25	6	7
3	4	5	11	6	7	18	6	7	26	1	2
4	6	7	12	1	2	19	1	2	27	3	4
5	1	2	13	3	4	20	3	4	28	5	6
6	3	4	14	5	6	21	5	6	29	7	Sak.
7	5	6	15	7	1	22	7	1	30	Cht.	Nag.
8	7	1				23	2	3			

Names of Karanas—1 Bava, 2 Bālava, 3 Kaulava, 4 Taitila, 5 Gara, 6 Vanij and 7 Viṣṭi. Then Sak. = Śakuni, Cht. = Catuṣpada, Nag = Nāga, and Kin = Kintughna.

ASPECTS & PHENOMENA IN 1986

Aspects :—Conjunction or on the same degree of longitude—☌, Semi-sextile or 30° apart—⚺, 1st Nonile 40°, Semi-square 45°—∠ Sextile 60°—✱, Quintile 72°—Q, 2nd Nonile 80°, Square 90°—□ Trine 120°—△, Sesquiquadrate 135°—⚼, Quincunc 150°, 4th Nonile —160°, Opposition 180°—☍, Parallel (*i.e.*, equality of declination) on the same side of the equator—P, on opposite sides—p. When the tropical or *sāyana* longitudes of two planets are supplementary—V (*i.e.*, the sum is 180°) or v. (*i.e.*, their sum is 360°).

The mutual aspects all above of the Sun, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune. Pluto and Rahu, together with Moon's conjunction sextiles, quadratures, trines and oppositions with all the planets and also the parallels and V-aspects with the Sun have been shown with the approximate time of their formation given in Indian Standard time recorded from 5-30 A.M. to 29*h*. 29*m* next morning within the same date. In case of conjunctions the distances apart in declination of the second mentioned planet with respect to the first one have also been stated in some cases in degrees and minutes.

Heliocentric conjunctions and oppositions of planets (Mercury to Neptune) and their quadratures with the Earth have also been shown prefixed by the word 'Helio'.

Phenomena include Perihelion and Aphelion (*viz*, planet at minimum and maximum linear distance from the Sun), Perigee and Apogee (in case of Sun and Moon from the Earth). Node N and Node S (*i.e.*, the planet is crossing the ecliptic towards North or South), planet □ its Node, *i.e.* at greatest helio, lat., planet on Equator, maximum declination of Moon, Stationary (Direct or Retrograde) greatest elongation of Mercury and Venus from the Sun, Mars nearest Earth and conjunctions of Moon and planets with bright stars etc.

January	*d*	*h*	*m*
☽ □ ♄	1	5	39
♀ △ ☊	1	5	48
☽ △ ♀	1	6	58
☽ △ ☊	1	8	37
☽ ✱ ♇	1	8	49
☉ V ♅	1	10	35
☉ P ☿	1	12	34
☽ △ ☉	1	15	43
☽ ✱ ♂	1	15	55
☿ V ♀	1	17	03
☿ P ♅	1	19	30
☉ ✱ ♂	1	23	02
♀ ✱ ♇	1	27	12
☽ □ ♅	2	7	40
☉ Perigee	2	10	38
♂ V ♃	2	15	18
☽ □ ☿	2	17	25
JANUARY—contd.	*d*	*h*	*m*
♃ ∠ ♆	2	27	06
☽ □ ♆	3	8	41
☿ Node S	3	11	03
☽ ✱ ♄	3	11	43
Helio ♀ ☌ ♆	3	11	53
☽ Equat. S	3	12	54
♀ 40 ♃	3	13	38
☿ V ♆	3	14	18
☽ □ ♀	3	17	58
☽ □ ☉	3	25	17
☿ P ♀	4	9	30
☿ ∠ ♂	4	10	02
☽ △ ♃	4	11	17
☽ ✱ ♅	4	12	33
♀ V ♅	4	18	52
☽ ✱ ☿	4	27	52
☽ ✱ ♆	S5	12	32
JANUARY—contd.	*d*	*h*	*m*
☽ ☍ ☊	5	17	29
☽ ☌ ♇	5	18	01
☽ ✱ ♀	5	26	18
☽ ☌ ♂ 1N44	5	29	09
☽ ✱ ☉	6	8	16
☉ 40 ♄	6	13	47
☽ □ ♃	6	14	47
☽ P ☉	7	10	42
☽ ☌ ♄ 4 N.24	7	17	49
☉ P ♆	7	26	05
☽ V ☉	7	28	55
Helio ☿ ☌ ♄	8	8	42
☽ Perigee	8	12	57
♀ ✱ ♂	8	13	54
☿ ☌ ♆ 1N40	8	16	08
☽ ✱ ♃	8	16	44

Aspects & Phenomena, 1986—*contd.*

JANUARY—contd.

	d	*h*	*m*
☽ ☌ ♅ 3N26	8	16	48
♃ ⚹ ♅	8	24	10
♀ 40 ♄	9	7	35
♀ P ♅	9	8	10
♂ P ♃	9	10	39
☿ ∠ ♃	9	10	44
☽ ☌ ♆ 5 N 18	9	15	35
☽ ☌ ☿ 3N35	9	18	09
☽ M.Dec. 27° S 39′	9	18	36
☽ △ ☊	9	19	35
☽ ⚹ ♇	9	20	45
☉ Q ♇	9	21	06
☿ ⚺ ♄	9	27	06
☿ △ ☊	10	6	26
☽ ⚹ ♂	10	11	43
☽ ☌ ♀ 4N06	10	13	54
☽ ☌ ☉ N.M.	10	17	52
☿ ⚹ ♇	10	19	22
☉ ⚺ ♅	10	19	34
♄ 150 ☊	10	23	51
☉ ⚺ ♃	10	29	00
♀ Q ♇	11	19	27
☽ □ ☊	11	20	37
☽ ⚹ ♄	11	21	03
☽ □ ♇	11	22	33
☉ ∠ ♄	11	23	50
☽ P ☉	S12	8	07
♀ ⚺ ♅	12	15	02
☽ □ ♂	12	16	24
☿ V ♅	12	16	53
☽ ⚹ ♅	12	20	56
☽ ☌ ♃ 4N18	12	22	00
♀ ⚺ ♃	12	29	07
☿ 40 ♃	13	6	43
♀ ∠ ♄	13	14	45
☿ Aphelion	13	18	40
☽ ⚹ ♆	13	21	29
☽ ⚹ ☊	13	24	14
☽ □ ♄	13	25	43
☽ △ ♇	13	27	02
☉ V ♄	14	6	12
Helio ☿ ☌ ♅	*14*	8	08
☽ ⚹ ☿	14	13	31

JANUARY—contd.

	d	*h*	*m*
♀ P ♆	14	18	35
☽ △ ♂	14	24	44
☽ □ ♅	14	27	09
♂ ∠ ♆	15	6	55
♀ V ♄	15	7	27
☽ ⚹ ♀	15	9	29
☽ ⚹ ☉	15	11	39
☽ □ ♆	16	5	32
☽ Equat N	16	8	42
☽ △ ♄	16	10	26
☿ 40 ♄	16	24	03
☽ □ ☿	17	7	02
♂ ⚺ ♅	17	9	52
☽ △ ♅	17	13	32
☽ ⚹ ♃	17	16	31
☉ 80 ♇	17	20	27
☽ □ ♀	17	26	49
☽ □ ☉	17	27	43
♀ 80 ♇	18	5	49
☿ Q ♇	18	14	11
☽ △ ♆	18	17	19
☽ ☌ ☊	18	19	34
☽ ☍ ♇	18	23	23
☿ ⚺ ♅	S 19	9	38
Helio ☿ ☌ ♆	*19*	17	04
☉ ☌ ♀ Sup.	19	21	35
☽ △ ☿	19	25	08
☽ ☍ ♂	20	5	36
☽ □ ♃	20	6	26
☽ Apogee	20	6	52
☿ ∠ ♄	20	8	08
☽ p ☉	20	8	58
☿ ⚹ ♂	20	11	54
☿ ⚺ ♃	20	16	54
☽ v ☉	20	21	06
♀ 40 ♅	20	22	10
☽ △ ☉	20	22	24
☿ V ♄	20	22	28
☽ △ ♀	20	22	56
☿ P ♅	20	23	30
☉ 40 ♅	20	28	15
♂ □ ♃	21	6	35
♃ V ♇	21	7	13
☽ ☍ ♄	21	12	03
☉ P ♄	22	15	06
☽ ☍ ♅	22	15	14
☽ △ ♃	22	20	03
♃ Q ☊	22	21	52
☿ 80 ♇	23	14	24

JANUARY—contd.

	d	*h*	*m*
♄ ⚺ ♇	23	17	30
☽ ☍ ♆	23	18	19
☽ ⚹ ☊	23	19	21
☽ M. Dec. 27°N41′	23	20	29
♀ ⚺ ♆	23	23	35
☽ △ ♇	23	23	56
♂ 40 ♆	23	26	41
♀ □ ☊	24	8	12
☿ P ♆	24	9	30
♀ V ♂	24	15	27
♂ 160 ☊	24	17	00
☉ ⚺ ♆	24	23	24
♀ ∠ ♅	24	25	33
☉ □ ☊	24	28	32
☉ V ♂	25	8	28
☽ △ ♂	25	10	13
♀ P ♄	25	16	10
☿ 40 ♅	25	18	00
☽ ☍ ☿	25	21	10
♆ △ ☊	25	22	26
☽ □ ☊	25	27	32
☽ ☍ ☉ F.M.	S26	6	01
♀ □ P	26	7	05
☉ ∠ ♅	26	8	21
☽ □ ♇	26	8	53
☽ ☍ ♀	26	9	06
☽ △ ♄	26	9	14
♀ ⚹ ♄	26	10	34
♀ Q ♂	26	21	06
☽ △ ♅	27	9	49
☿ V ♂	27	10	03
♀ Aphelion	27	10	43
☉ P ♂	27	11	30
☽ p ☉	27	12	13
☽ ☍ ♃	27	15	50
☿ □ ☊	27	17	05
☉ □ ♇	27	19	06
☽ □ ♂	27	20	15
☿ ⚺ ♆	27	23	41
☉ ⚹ ♄	27	26	33
☽ △ ☊	28	9	27
☽ △ ♆	28	10	33
☽ ⚹ ♇	28	15	29
☽ □ ♄	28	16	06
☿ ∠ ♅	28	19	34
♀ P ♂	28	22	03
☿ □ ♇	29	14	55

JANUARY—concld.

	d	h	m
☽ □ ♅	29	15	47
☿ ✱ ♄	29	21	10
☽ ✱ ♂	29	28	12
☽ □ ♆	30	15	46
☽ Equat S	30	17	19
☉ Q ♂	30	20	52
☽ ✱ ♄	30	21	23
☽ △ ☿	30	24	39
☿ P ♄	30	26	05
☽ △ ☉	30	26	20
☽ △ ♀	31	7	28
♀ 80 ☊	31	8	02
☿ Q ♂	31	18	01
☽ ✱ ♅	31	20	25
♀ 40 ♆	31	27	31
☽ △ ♃	31	27	41

February

	d	h	m
☉ ☌ ☿ Sup,	1	6	40
☿ P ♂	1	7	24
☽ ☍ ☊	1	18	04
☽ ✱ ♆	1	19	53
☽ ☌ ♇	1	24	46
☿ 80 ☊	S2	7	06
☽ □ ☉	2	10	11
☽ □ ☿	2	11	47
☽ P ☉	2	12	07
☽ □ ♀	2	16	15
☿ 40 ♆	2	22	12
☉ 80 ☊	2	24	05
☿ □ Node	2	25	28
☽ □ ♃	3	7	53
☽ ☌ ♂ 3N13	3	16	12
☉ 40 ♆	3	27	26
☽ ☌ ♄ 4N50	3	28	49
☽ ✱ ☉	4	16	55
Helio ☿ ☌ ♀	4	18	56
☽ Perigee	4	21	42
☽ ✱ ☿	4	21	44
☽ ✱ ♀	4	23	53
☽ ☌ ♅ 3 N 41	4	26	52
♀ ∠ ♆	5	5	49
☽ ✱ ♃	5	11	18
♀ Q ♄	5	14	10
☽ V ☉	5	16	25
☿ ∠ ♆	5	18	27
Helio ☿ ☌ ♃	5	19	42

FEBRUARY—contd.

	d	h	m
☽ △ ☊	5	23	18
☉ P ♀	5	24	42
☿ Q ♄	5	25	32
☽ ☌ ♆ 5 N 29	5	25	39
☽ M.Dec.27°S46′	5	26	27
♂ P ♄	6	5	30
☽ ✱ ♇	6	5	54
♀ ✱ ♅	6	10	46
♀ Q ☊	6	15	45
☿ Q ☊	6	15	45
☿ ✱ ♅	6	15	47
☿ ☌ ♀ 0 N 37	6	27	16
Helio ♀ ☌ ♃	7	7	38
☿ V ♇	7	9	03
♀ V ♇	7	11	35
♃ v ☊	7	13	30
☿ 80 ♂	7	14	03
♂ 150 ☊	7	19	35
♀ 80 ♂	7	22	54
☽ □ ☊	7	25	22
☽ ✱ ♂	7	25	42
☽ □ ♇	8	8	40
☽ ✱ ♄	8	10	29
☉ P ☿	8	13	13
♇ Retro.	8	25	51
☉ ∠ ♆	8	29	06
☿ P ♀	S9	5	30
☽ ☌ ☉ N.M.	9	6	25
☽ ✱ ♅	9	9	02
☽ ☌ ♀ 3 N 29	9	15	50
☽ ☌ ☿ 3N03	9	18	39
☽ ☌ ♃ 4 N 03	9	19	19
☉ Q ♄	9	19	24
☿ v ☊	9	22	53
☉ 80 ☊	9	23	45
☿ ☌ ♃ 1 N 00	9	24	21
☽ ✱ ☊	9	28	47
☽ P ☉	9	29	00
☽ □ ♂	10	8	16
♄ 7°N *Antares*	10	8	30
☽ ✱ ♆	10	8	54

FEBRUARY—contd.

	d	h	m
☽ △ ♇	10	13	14
☽ □ ♄	10	15	26
♃ Q ♅	10	15	47
☿ 80 ♄	10	16	01
☉ ✱ ♅	10	18	31
♂ V̲ ♆	10	23	09
♀ v ☊	11	9	02
☿ P ♃	11	9	12
♀ ☌ ♃ 0N38	11	13	47
☽ □ ♅	11	15	06
☉ V ♇	11	21	14
♀ 80 ♄	12	7	11
☽ □ ♆	12	16	27
☽ EquatN	12	16	57
☽ ✱ ☊	12	17	43
☿ △ ♂	12	18	21
☽ △ ♄	12	23	29
♀ P ♃	12	28	21
☿ Q ♅	13	10	23
☽ △ ♅	13	24	34
☿ ✱ ♆	14	5	30
☽ ✱ ☉	14	7	21
☽ ✱ ♃	14	14	09
☽ ✱ ♀	14	20	58
☽ ☌ ☊	14	21	41
♂ V̲ ♇	14	25	23
☽ v ☉	14	25	29
☽ ∠ ♆	14	27	20
♀ ✱ ☊	14	27	54
☽ ✱ ☿	15	7	08
☽ ☍ ♇	15	7	51
☿ △ ♇	15	11	53
☿ □ ♂	15	16	51
☉ P ♃	15	18	18
♃ 80 ♄	S16	5	30
♀ Q ♅	16	7	28
☿ □ ♄	16	8	16
♃ ✱ ♆	16	18	25
☉ v ☊	16	22	23
☽ □ ☉	16	25	25
☽ Apogee	16	27	52
☽ □ ♃	16	27	57
♀ ✱ ♆	17	11	25
♂ 5°N *Antares*	17	11	30
☽ □ ♀	17	16	43
♂ ☌ ♄ 1N16	17	20	27

FEBRUARY—contd.

	d	*h*	*m*
☽ ☍ ♄	17	22	44
☿ 80 ♅	17	23	02
☽ ☍ ♂	17	24	08
☉ 80 ♄	17	28	14
☽ □ ☿	18	6	45
☉ 80 ♂	18	13	48
☉ ☌ ♃	18	15	36
♀ □ Node	18	17	44
♂ 80 ♃	18	18	04
☽ ☍ ♅	18	25	48
♀ △ ♇	18	19	11
Helio ☿ □ ♂	*19*	9	05
☽ △ ♃	19	17	33
☽ △ ☉	19	19	23
☽ ✱ ☊	19	22	20
☽ M. Dec. 27° N 52′	19	28	16
☽ ☍ ♆	19	28	26
☽ △ ♇	20	8	32
☽ △ ♀	20	9	57
♀ □ ♄	20	15	10
☿ ∠ ☊	20	24	23
☽ △ ☿	20	27	43
☉ ✱ ☊	20	27	46
☿ Q ♆	20	27	48
♃ △ ♇	21	24	42
☿ Node N	21	26	49
☽ □ ☊	22	7	17
Helio ⊕ □ ♄	*22*	16	29
☽ □ ♇	22	17	25
♀ □ ♂	22	18	58
☽ △ ♄	22	20	54
♀ *Q* ♅	22	20	57
☉ Q ♅	22	25	26
☽ △ ♂	22	26	00
☽ △ ♅ S	23	20	00
☿ 40 ☊	23	21	11
☿ □ ♅	23	27	35
☿ ⊡ ♇	24	9	24
☉ ✱ ♆	24	11	18
☽ ☍ ♃	24	11	56
☽ △ ☊	24	12	56
Helio ☿ ☍ ♄	*24*	14	54
☽ △ ♆	24	19	29
☽ ☍ ☉ F.M.	24	20	32
☽ ✱ ♇	24	23	15
Helio ⊕ □ ☿	*24*	23	33
☽ □ ♄	24	26	46
☿ p ♇	24	28	00

FEBRUARY—concld.

	d	*h*	*m*
☽ □ ♂	25	9	45
☽ p ☉	25	13	07
☽ ☍ ♀	25	13	09
☽ □ ♅	25	24	50
♃ ✱ ☊	25	24	56
☽ ☍ ☿	26	5	45
♀ ∠ ☊	26	7	36
☉ △ ♇	26	9	50
☿ 80 ♆	26	16	21
☿ Perihelion	26	18	19
☽ Equat S	26	23	31
☽ □ ♆	26	23	48
Helio ☿ ☍ ♅	*26*	26	08
♀ Q ♆	27	6	09
☽ ✱ ♄	27	6	36
☽ ✱ ♂	27	15	24
☿ Equat N	27	23	30
☽ V ☉	27	26	24
☽ ✱ ♅	27	28	08
☽ P ☉	27	29	23
☉ □ ♄	28	12	49
☽ ☍ ☊	28	19	26
☽ △ ♃	28	20	49
☿ Gt. Elong. 18E09	28	21	54
☽ ✱ ♆	28	26	45

March

	d	*h*	*m*
☽ ☌ ♇	1	5	50
Helio ☿ □ ♆	*1*	9	48
☽ △ ☉	1	11	05
☽ Perigee	1	15	01
☽ △ ♀	1	29	15
♂ P ♆ S	2	5	30
♀ 40 ☊	2	5	30
♂ ⊡ ☊	2	10	00
☽ △ ☿	2	19	30
☽ □ ♃	2	24	28
♀ □ ♅	2	24	58
♀ ⊡ ♇	2	26	58
☉ 80 ♅	3	5	30
☽ ☌ ♄ 5N14	3	12	27
☽ □ ☉	3	17	47
☽ ☌ ♂ 4N11	3	25	15
♂ 40 ♇	4	9	44
☽ ☌ ♅ 3N57	4	10	00

MARCH—contd.

	d	*h*	*m*
☽ □ ♀	4	13	09
☽ △ ☿	4	24	44
☽ △ ☊	4	25	20
☽ ✱ ♃	4	28	27
☽ M.Dec. 27° S 58′	5	8	06
☽ ☌ ♆ 5N43	5	8	52
☽ ✱ ♇	5	11	46
♀ 80 ♆	5	18	28
☿ ⊻ ☊	5	21	52
☿ p ♀	5	22	47
☽ ✱ ☉	5	25	05
♅ ∠ ♇	6	13	30
☽ ✱ ♀	6	21	54
☉ ∠ ☊	6	25	30
☽ □ ☊	6	28	50
☽ ✱ ☿	6	29	28
♀ p ♇	7	13	14
☽ □ ♇	7	15	46
☿ Retro,	7	16	28
☽ ✱ ♄	7	20	02
☿ v ♀	8	8	07
☽ ✱ ♂	8	13	35
☉ Q ♆	8	16	05
☽ ✱ ♅	8	18	24
☿ □ Node	8	24	14
☽ ✱ ☊ S	9	9	32
☽ ☌ ♃ 3N47	9	15	31
☽ ✱ ♆	9	18	25
♀ ⊻ ☊	9	20	50
☽ △ ♇	9	21	14
☽ □ ♄	9	25	47
☿ ☌ ♀ 4 S 54	9	26	47
Helio ⊕ □ ♅	*10*	9	10
☽ ☌ ☉ N. M.	10	20	22
☽ □ ♂	10	22	23
☿ ⊻ ☊	10	24	42
☽ □ ♅	10	25	04
☽ p ☉	11	12	25
☉ 40 ☊	11	13	23
Helio ☿ ☍ ♃	*11*	13	47
☽ ☌ ☿ 6 N 55	11	15	53
☽ EquatN	11	16	20
☽ ☌ ♀ 1N 18	11	21	29

MARCH—contd.

	d	h	m
☽ Equat N	11	25	16
☽ □ ♆	11	26	13
☽ v ☉	12	8	14
☽ △ ♄	12	9	59
☽ p ☉	12	15	04
☉ □ ♂	12	26	05
☉ ⚼ ♇	12	28	19
♂ ∠ ♇	13	6	12
☉ □ ♅	13	9	34
☽ △ ♂	13	10	11
☽ △ ♅	13	10	25
♂ ☌ ♅ 0S21	13	16	00
♀ ⊻ ♃	13	17	18
♀ □ ♆	13	21	43
☽ ☌ ☊	13	26	19
♀ 150 ♇	14	8	42
☽ ✱ ♃	14	11	49
☽ △ ♆	14	12	50
☉ v ♀	14	14	44
☽ ☍ ♇	14	15	38
☿ p ♇	15	11	58
☉ p ♇	15	13	30
☿ P ♀	15	17	56
☉ p ♀	15	18	30
☽ Q ♃	15	20	10
♀ P ♇	15	23	06
☽ ✱ ☉	15	27	48
♃ 80 ♅	S16	5	30
☽ ✱ ☿	16	7	00
♃ ✱ ♆	16	18	25
☉ ⊢0 ♆	16	19	09
☽ Apogee	16	24	19
☉ ☌ ☿ Inf.	16	25	03
☽ □ ♃	16	25	32
♀ △ ♄	16	28	12
☽ ☍ ♄	17	9	33
☽ ✱ ♀	17	10	11
♂ V ☊	17	10	35
☿ 80 ♆	17	22	20
☿ □ ♂	18	6	52
☽ ☍ ♅	18	11	08
☽ □ ☿	18	15	21
☽ ☍ ♂	18	16	27
☽ □ ☉	18	22	09
☽ ✱ ☊	18	27	27
☽ M.Dec.28°N04′	19	12	30
☽ ☍ ♆	19	13	54
♄ Retro.	19	14	54

MARCH—contd.

	d	h	m
☽ △ ♃	19	15	09
☽ △ ♇	19	16	21
☿ Equat S	19	26	24
☽ □ ♀	19	29	16
☉ p ☿	20	13	49
☿ □ ♅	20	22	15
☽ △ ☿	20	22	27
☉ Equinox	20	27	33
☿ ⚼ ♇	21	11	07
☉ ⊻ ☊	21	12	21
☽ □ ☊	21	13	44
☽ △ ☉	21	13	57
♃ △ ♇	21	24	42
☽ □ ♇	21	26	05
♂ P ♅	22	5	30
♂ △ ♄	22	7	18
☽ △ ♀	22	20	11
♀ 160 ♇	22	23	11
☿ 40 ♃	22	28	20
♀ △ ♅	S23	6	29
☿ △ ♂	23	15	46
☿ 40 ☊	23	17	50
☽ △ ☊	23	20	26
♀ △ ♆	24	6	17
☽ ✱ ♇	24	8	11
☽ ☍ ♃	24	9	12
☽ □ ♄	24	13	05
☽ p ♇	24	17	03
☿ ⊻ ♀	24	24	50
Helio ⊕ □ ♆	*24*	25	06
☽ ☍ ♀	25	5	46
☽ □ ♅	25	10	57
☽ V ☉	25	16	14
☽ □ ♂	25	21	42
☽ P ☉	25	25	30
☿ 80 ♂	25	28	17
☽ Equat S	26	8	29
☽ ☍ ☉ F.M.	26	8	32
☽ □ ♆	26	9	31
☽ ✱ ♄	26	15	59
♂ Node S	26	18	24
☉ □ ♆	26	23	00
♀ v ♃	26	25	25
☉ P ♇	26	26	22
♀ △ ♅	27	9	44
☽ ✱ ♅	27	13	03
☽ ☍ ♀	27	13	21
☽ ✱ ♂	27	15	18
♅ Retro.	27	19	47

MARCH—concld.

	d	h	m
☉ 150 ♇	27	23	30
☽ ✱ ♂	27	25	18
☽ ☍ ☊	27	25	38
♀ ∠ ♃	27	27	08
☽ ✱ ♆	28	11	04
♂ △ ☊	28	11	06
☽ ☌ ♇	28	12	40
☽ △ ♃	28	15	21
☽ Perigee	28	19	23
♀ ⚼ ♄	29	5	30
☽ △ ☿	29	7	07
♀ p ♃	29	19	37
☉ ⊻ ♃	29	21	40
☿ Direct	S30	14	16
☽ □ ♃	30	17	32
☽ ☌ *Antares* 1 S 0 *Occultation*	30	18	30
☽ △ ☉	30	18	37
☽ ☌ ♄ 5 N 27	30	18	43
☉ △ ♄	30	20	18
☽ □ ☿	31	8	40
☽ ☌ ♅ 4 N 07	31	16	04
Helio ♀ ☍ ♂	*31*	17	52
☿ 40 ♀	31	23	14
☽ △ ♀	31	25	49
☽ △ ☊	31	29	06

April

	d	h	m
☽ ☌ ♂ 4 N30	1	8	17
☿ Node S	1	10	13
☽ M. Dec. 28° S 07′	1	13	24
☽ ☌ ♆ 5N53	1	14	48
☽ ✱ ♇	1	16	17
☽ ✱ ♃	1	20	51
☽ □ ☉	1	25	00
☉ v ☿	1	25	10
☽ ✱ ☿	2	12	20
☉ p ☿	2	12	34
♀ ☌ ☊	2	15	44
♃ □ ♄	2	19	18
Helio ☿ ☌ ♂	*2*	27	58
☽ □ ☊	3	8	52
☽ □ ♀	3	10	36
☽ □ ♇	3	20	23

APRIL—contd.

	d	*h*	*m*
☽ ✶ ♄	3	25	32
☽ ✶ ☉	4	9	44
☽ ✶ ♅	4	24	38
Helio ☿ ☍ ♀	*5*	8	10
☽ ✶ ☊	5	14	40
☽ ✶ ♀	5	22	11
☽ ✶ ♂	5	22	21
♀ △ ♂	5	25	08
☽ ✶ ♆	5	25	16
☽ △ ♇	5	26	36
☽ □ ♄	S 6	7	59
☽ ☌ ♃ 3 N 27	6	9	38
☿ 40 ☊	6	11	59
☽ v ☉	6	15	55
☿ ∠ ♀	6	18	25
☉ 160 ♇	6	20	2
☽ ☌ ☿ 2 N 27	6	28	29
☽ p ☉	7	5	34
♀ △ ♆	7	7	07
Helio ☿ ☌ ♄	*7*	7	33
☽ □ ♅	7	8	08
♆ Retro.	7	18	22
♀ ☍ ♇	7	20	20
☽ Equat N	8	8	33
☽ □ ♂	8	9	03
☽ □ ♆	8	9	53
♀ ⚼ ♅	*8*	12	19
☽ △ ♄	8	16	46
Helio ♀ ☍ ♄	*8*	18	53
☿ ⚼ ♇	8	18	54
♂ ☌ ♆ 1 N 27	9	6	21
☉ v ♃	9	9	30
☽ ☌ ☉ N.M. *Eclipse*	9	11	38
☽ △ ♅	9	17	58
☿ □ ♅	9	21	30
♀ 150 ♄	9	27	36
☽ ☌ ☊	10	8	59
♂ ✶ ♇	10	13	30
☽ △ ♆	10	20	41
☽ ☍ ♇	10	21	52
☽ △ ♂	10	22	13
☉ p ♃	11	6	23
☉ ☌ ♀ 1 S18	11	6	26
☽ ✶ ♃	11	7	47

APRIL—contd.

	d	*h*	*m*
☿ Aphelion	11	17	57
♀ ✶ ♃	11	22	18
☉ 40 ♃	11	22	43
☽ ✶ ☿	12	10	05
Helio ☿ ☌ ♅	*12*	16	42
☉ △ ♅	12	17	06
♂ V ♅	S13	10	07
☽ ☍ ♄	13	16	01
☽ Apogee	13	17	30
☿ 80 ♆	13	20	09
☿ Gt. Elong. 27 w 39	13	20	31
☽ □ ♃	13	20	50
☉ ⚼ ♄	14	15	06
☽ ☍ ♅	14	18	29
☽ ✶ ☉	14	23	02
☽ □ ☿	14	28	26
♃ 80 ♅	15	7	21
☽ ✶ ☊	15	9	46
☽ M. Dec. 28° N09′	15	20	12
☽ ☍ ♆	15	21	27
☽ △ ♇	15	22	47
♀ Node N	15	24	47
☽ ☍ ♂	15	28	11
♂ ⊻ ♄	16	10	28
☽ △ ♃	16	11	09
☽ ✶ ♀	16	21	37
☿ p ♇	16	25	08
☿ 80 ♂	17	6	35
☽ □ ☉	17	16	05
☽ □ ☊	17	18	27
☿ ⊻ ☊	17	18	45
Helio ☿ ☌ ♆	*17*	20	50
☽ △ ☿	17	21	59
Helio ♀ ☍ ♅	*17*	23	56
♀ 160 ♄	17	24	20
☽ □ ♇	18	9	34
☉ ∠ ♃	18	10	12
☽ △ ♄	18	14	50
♀ ⚼ ♆	19	11	20
☽ □ ♀	19	13	06
☽ △ ♅	19	15	29
☽ △ ☉	19	29	12
☽ △ ☊	S20	5	53

APRIL—contd.

	d.	*h*	*m*
☽ V ☉	20	6	29
♀ 150 ♅	20	14	15
☉ ☌ ☊	20	14	36
☽ △ ♆	20	16	10
☽ ✶ ♇	20	16	51
☽ □ ♄	20	21	41
☽ P ☉	20	23	24
☽ △ ♂	20	25	38
☽ ☍ ♃	21	5	49
☽ □ ♅	21	20	48
☽ △ ♀	21	23	49
☿ □ ♆	22	8	48
☿ 150 ♇	22	14	59
☽ Equat S	22	19	01
☿ Equat N	22	19	06
☽ □ ♆	22	19	55
☽ ☍ ☿	22	21	03
☽ ✶ ♄	22	24	58
☽ □ ♂	23	6	22
♀ Q ♃	23	16	31
♀ 160 ♇	23	19	16
☽ ✶ ♅	23	22	51
♀ p ♄	24	5	30
☽ ☍ ☊	24	11	42
☿ △ ♄	24	12	24
☽ p ☉	24	17	30
☽ ☍ ☉ F.M. *Eclipse*	24	18	16
☽ ✶ ♆	24	20	57
☽ ☌ ♇	24	21	25
♀ ⚼ ♂	24	28	32
☽ ✶ ♂	25	8	21
☽ △ ♃	25	10	37
☽ Perigee	25	23	10
☽ ☍ ♀	26	10	38
☉ △ ♆	26	11	18
Helio ♂ ☌ ♄	*26*	17	30
☉ ☍ ♇	26	17	50
Helio ♀ ☍ ♆	*26*	20	50
♀ ⊻ ☊	26	24	19
☽ ☌ ♄ 5N27	26	25	26
☽ ☌ *Antares occult.* 1 S 06	26	26	30
♄ 7° N *Antares*	26	27	30
☽ △ ☿	S27	8	14
☽ □ ♃	27	11	16
☿ P ♇	27	13	56
☉ ⚼ ♅	27	18	42

APRIL.—concld.

	d	*h*	*m*
☽ ☌ ♅ 4N07	27	23	07
☿ □ ♂	27	26	19
☽ △ ☊	28	12	10
♀ 160 ♅	28	15	14
☿ ⊻ ♃	28	17	39
☽ M. Dec. 28°S08′	28	20	24
☿ v ♃	28	20	39
☽ ☌ ♆ 5 N 55	28	21	36
☽ ✱ ♇	28	21	58
☽ △ ☉	28	25	46
♃ ∠ ☊	28	27	19
Helio ⊕ □ ☿	*28*	28	39
☉ 150 ♄	29	5	54
☿ 160 ♇	29	10	18
☽ ☌ ♂ 4N02	29	12	08
☽ ✱ ♃	29	13	11
☽ □ ☿	29	15	17
☽ □ ☊	30	14	34
☽ △ ♀	30	22	58
☽ □ ♇	30	24	48
☽ ✱ ♄	30	29	02

May

☽ □ ☉	1	8	52
♀ 80 ♃	1	10	55
♀ 150 ♆	1	16	12
♀ 150 ♇	1	19	35
☽ v ☉	1	23	58
☿ □ Node	1	24	44
☽ ✱ ☿	1	26	17
☽ ✱ ♅	1	29	12
♂ ✱ ♃	2	16	25
♀ p ♆	2	18	18
☽ ✱ ☊	2	21	11
☽ p ☉	2	21	17
☿ △ ♅	2	25	42
☽ ✱ ♆	3	6	26
☽ △ ♇	3	6	43
☽ □ ♀	3	10	18
☽ □ ♄	3	11	08
☿ p ♃	3	11	54
♀ ☍ ♄	3	17	21
☽ ✱ ☉	3	19	52
☿ ⚼ ♄	3	20	13
☽ ☌ ♃ 3N01	3	25	32

MAY—contd.

	d	*h*	*m*
☽ ✱ ♂	3	26	02
☿ ∠ ♀	3	27	51
☽ □ ♅ S	4	12	49
♀ 40 ☊	5	5	30
☿ 40 ♃	5	13	21
☽ Equat N	5	14	29
☽ □ ♆	5	15	25
♀ 6° N *Aldebaran*	5	16	30
☽ △ ♄	5	20	06
☽ ✱ ♀	5	25	58
♅ ∠ ♇	6	13	30
☽ □ ♂	6	13	39
Helio ☿ ☌ ♃	*6*	19	59
☽ △ ♅	6	23	02
♀ p ♅	7	11	30
♀ v ♂	7	12	01
☉ ✱ ♃	7	14	11
☉ ☌ ☿ 2 S 15	7	15	02
☽ ☌ ☊	7	15	31
☿ ☌ ☊	7	18	16
☽ △ ♆	7	26	36
☽ ☍ ♇	7	26	47
☿ ∠ ♃	8	16	12
♂ Q ♇	8	16	18
☽ P ☉	8	19	09
☉ △ ♂	8	19	39
☉ 160 ♄	8	22	32
☽ ✱ ♃	8	25	07
☽ △ ♂	8	27	11
♂ 40 ♄	8	27	25
☽ ☌ ☉ N. M.	8	27	40
♀ ∠ ☊	9	8	42
♀ 160 ♆	9	19	07
♀ p ♂	10	5	30
☿ △ ♆	10	17	11
☿ ☍ ♇	10	17	55
☽ ☍ ♄	10	19	30
♀ □ ♃	10	26	24
☽ Apogee	10	28	09
☿ ⚼ ♅ S	11	6	31
☽ □ ♃	11	14	48
☽ ☌ ♀ 2 S 48	11	16	02
☉ ⚼ ♆	11	17	42
☿ 150 ♄	11	19	11
☽ ☍ ♅	11	23	42
☿ 40 ♀	12	5	59
♀ 150 ♂	12	12	01

MAY—contd.

	d	*h*	*m*
☽ ✱ ☊	12	16	28
☉ 150 ♅	12	19	06
☽ M. Dec. 28° N 06′	12	26	42
☽ ☍ ♆	12	27	51
☽ △ ♇	12	27	55
♃ Q ☊	13	9	52
☽ ✱ ☿	13	15	25
♀ ⚼ ♇	12	21	49
☽ △ ♃	13	28	11
☽ ☍ ♂	14	7	34
☽ ✱ ☉	14	15	34
♀ ☍ ♅	14	19	13
☽ □ ☊	14	28	09
☽ □ ♇	15	15	22
☽ V ☉	15	15	51
☽ △ ♄	15	19	01
♆ ✱ ♇	16	5	30
♀ v ♆	16	7	11
☽ □ ☿	16	14	08
☿ 160 ♄	16	14	26
☉ 160 ♇	16	19	44
☽ P ☉	16	20	41
☽ △ ♅	16	22	02
☿ ✱ ♃	16	23	17
☽ ✱ ♀	16	27	47
☽ □ ☉	17	6	30
☽ △ ☊	17	13	34
☽ ✱ ♇	17	24	10
☽ △ ♆	17	24	15
☿ △ ♂	17	24	34
☿ ⚼ ♆	17	26	07
☽ □ ♄	17	27	27
☉ p ♄ S	18	11	54
☿ 150 ♅	18	12	42
☽ ☍ ♃	18	23	39
☽ △ ♂	18	27	33
☽ □ ♅	18	28	58
☽ △ ☿	19	8	01
♀ 160 ♄	19	8	56
☽ □ ♀	19	15	22
☽ △ ☉	19	17	03
♀ Perihelion	19	20	34
☽ Equat S	19	28	55
☽ □ ♆	19	29	25
☽ ✱ ♄	20	8	13
☿ 160 ♇	20	10	21
☿ Node N	20	26	11

MAY—contd.

	d	*h*	*m*
☿ p ♄	20	26	33
☽ □ ♂	21	7	46
☽ ✶ ♅	21	8	07
♀ ✶ ☊	21	13	50
☽ ☍ ☊	21	22	02
☉ ⊻ ☊	21	22	20
☽ △ ♀	21	22	45
♂ ⊻ ♅	22	5	30
☽ ☌ ♇	22	7	04
☽ ✶ ♆	22	7	08
☿ ⊻ ☊	22	10	01
☉ P ☿	22	10	07
☉ Q ♃	22	11	52
☉ ⊻ ♀	22	15	47
☉ 160 ♅	22	19	30
♀ 160 ♂	22	22	07
☿ Q ♃	22	23	15
☿ 160 ♅	22	25	44
☽ △ ♃	22	29	01
☉ ☌ ☿ Sup.	23	6	54
☽ ✶ ♂	23	8	53
☿ ⊻ ♀	23	10	23
☽ p ✶	23	12	06
Helio ♂ ☌ ♅	*23*	19	37
Helio ☿ ☍ ♄	*23*	24	30
☽ ☍ ☉ F.M.	23	26	15
☽ ☍ ☿	23	28	03
☽ Perigee	24	8	30
☽ ☌ ♄ 5N18	24	8	59
☽ 1°S *Antares Occultation*	24	13	30
♂ ∠ ♄	24	17	30
♀ 150 ♇	24	24	06
♀ 150 ♆	24	24	20
☽ □ ♃	24	28	46
☽ ☌ ♅ 4N00 S	25	8	38
☿ ☍ ♄	25	13	16
☿ ⚼ ♂	25	15	44
♀ p ♆	25	16	20
☿ Perihelion	25	17	34
☽ △ ☊	25	21	04
♀ △ ♇	25	26	54
☿ ☍ ♆	25	27	51
☿ v ♂	25	29	10
Helio ☿ ☍ ♅	*25*	9	26

MAY—contd.

	d	*h*	*m*
☽ M.Dec. 28° S 04′	26	5	32
☽ ✶ ♇	26	6	01
☽ ☌ ♆ 5N50	26	6	05
☽ ☍ ♀	26	6	17
Helio ☿ ☍ ♂	*26*	10	51
♃ 40 ☊	26	19	30
☿ 40 ☊	26	20	37
☿ 80 ♃	26	20	43
☉ 150 ♇	26	23	00
☉ 150 ♆	26	23	54
☿ 150 ♄	26	29	11
☽ ✶ ♃	26	29	12
☽ ☌ ♂ 2N38	27	9	26
☽ v ☉	27	13	04
☿ p ♅	27	17	03
☽ □ ☊	27	21	33
☉ ☍ ♄	28	6	12
☽ □ ♇	28	7	09
☽ ✶ ♄	28	9	19
☽ △ ☉	28	9	30
Helio ☿ ☍ ♆	*28*	11	06
☽ p ☉	28	21	17
☽ △ [illegible]	28	22	15
☿ ∠ ☊	28	26	25
☉ ⚼ ♂	29	6	28
☿ v ♅	29	8	56
☽ ✶ ♅	29	10	22
☉ v ♂	29	11	30
♀ 150 ♆	29	11	47
☽ ✶ ☊	29	25	13
Helio ⊕ □ ♃	*30*	7	43
☿ p ♂	30	8	30
☽ △ ♇	30	11	41
☽ ✶ ♆	30	11	43
☽ □ ♄	30	15	48
☽ □ ☉	30	18	25
♀ 150 ♅	30	21	04
☽ △ ♀	30	22	23
☿ V ♀	30	28	39
☉ 40 ☊	31	6	21
♃ ⚼ ♇	31	8	10
☽ □ ♀	31	13	47
☽ ☌ ♃ 2N28	31	15	24
☽ □ ♅	31	16	50
☿ P ♀	31	16	56

MAY—concld.

	d	*h*	*m*
☿ ⚼ ♇	31	19	06
☽ ✶ ♂	31	20	19
☿ □ ♃	31	20	29
♀ Q ☊	31	21	10
☿ □ ♅	31	27	42
☉ 80 ♃	31	28	31

June

	d	*h*	*m*
☽ EquatN S	1	19	48
☽ □ ♆	1	20	04
☽ △ ♄	1	22	00
☿ 150 ♂	1	27	39
☽ ✶ ☉	2	8	07
☽ □ ♀	2	13	38
♀ p ♂	2	22	18
☽ △ ♅	2	22	50
☉ p ♆	2	26	30
☿ v ♆	2	29	18
☽ □ ♂	3	7	05
☽ ✶ ☿	3	12	20
☿ 160 ♄	3	17	12
☽ ☌ ☊	3	19	59
☽ ☍ ♇	4	7	15
☽ △ ♆	4	7	19
☉ V ♀	4	15	04
☿ □ Node	4	23	29
♃ □ ♅	5	5	30
☽ ✶ ♀	5	7	19
☿ ✶ ☊	5	10	59
☉ ∠ ☊	5	12	05
☽ ✶ ♃	5	15	04
☽ △ ♂	5	19	50
Heilo ♀ ☍ ♃	*5*	21	56
☉ 150 ♆	5	28	18
☽ P ☉	6	9	46
♀ 80 ☊	6	21	17
☽ ☍ ♄	6	21	31
☽ Apogee	7	7	26
☿ 160 ♂	7	11	30
☽ ☌ ☉ N.M.	7	19	30
♀ 150 ♅	7	24	14
♀ ⚼ ♄	7	25	43
☽ ☍ ♅	7	27	37
☽ □ ♃	7	28	31
♆ ✶ ♇ S	8	5	30
♀ △ ♃	8	9	34
☿ △ ♇	8	11	43
☿ ☍ ♆	8	11	47

JUNE—contd.

	d	*h*	*m*
☿ 150 ♄	8	20	33
☽ ✶ ☊	8	20	38
♂ Retro.	8	28	54
Helio ☿ ☍ ♃	8	29	25
☽ M. Dec. 28° N 01′	9	8	10
☽ △ ♇	9	8	34
☽ ☍ ♆	9	8	36
☽ ☌ ☿ 2S39	9	12	18
☽ V ☉	9	21	48
♀ ☍ ♂	9	28	10
♀ □ Node	10	12	32
☽ △ ♃	10	17	17
♀ 6° S *Pollux*	10	19	30
☽ ☍ ♂	10	20	58
☽ ☌ ♀ 3 S 12	10	22	53
Helio ☿ ☌ ♀	*10*	23	40
♀ p ♅	10	25	30
☿ v ♅	10	29	00
☉ ⚼ ♇	11	6	44
☽ □ ☊	11	7	52
☉ V ☿	11	10	44
♀ v ♄	11	11	14
☉ P ♀	11	13	58
♀ 160 ♆	11	15	10
Helio ⊕ □ ☿	*11*	15	35
☿ 160 ♅	11	16	26
☿ Q ☊	11	18	31
☽ □ ♇	11	20	10
☉ ☍ ♅	11	20	11
☽ △ ♄	11	21	09
☿ p ♂	11	22	07
☽ P ☉	11	26	06
☉ □ ♃	12	22	45
☽ △ ♅	12	26	17
☽ ✶ ☉	12	28	56
☉ p ♅	13	5	30
☉ △ ☊	13	17	34
☽ △ ♆	14	5	47
☽ ✶ ♇	14	5	50
☽ □ ♄	14	6	33
Helio ⊕ □ ♀	*14*	9	03
☉ 150 ♂	14	12	11
♀ □ ☊	14	13	30
☽ ✶ ☿	14	26	12
♀ p ♆	S15	5	30

JUNE—contd.

	d	*h*	*m*
☽ □ ♅	15	10	26
☽ ☍ ♃	15	13	01
☽ △ ♂	15	15	10
☽ □ ☉	15	17	30
☽ ✶ ♀	15	28	28
☽ □ ♆	16	12	26
☽ Equat S	16	12	35
☽ ✶ ♄	16	13	00
☉ 160 ♄	16	16	43
☿ 80 ☊	16	20	11
☉ v ♆	16	23	53
☽ □ ☿	17	13	53
☽ ✶ ♅	17	15	19
☽ □ ♂	17	19	35
Helio ♂ ☌ ♆	*17*	21	02
☿ ⚼ ♄	17	24	45
☽ △ ☉	17	25	56
☿ 150 ♅	17	29	05
☽ ☍ ☊	17	29	15
☽ □ ♀	18	13	00
☉ P ☿	18	13	54
☽ ✶ ♆	18	15	46
☽ ☌ ♇	18	15	55
☿ p ♅	19	7	54
☿ △ ♃	19	14	03
☽ △ ♃	19	20	12
☽ △ ☿	19	20	46
☽ ✶ ♂	19	20	51
☿ ☍ ♂	19	21	36
♀ 150 ♆	19	22	30
♀ □ ♇	19	24	46
☉ ✶ ☊	19	25	54
♀ △ ♄	19	26	15
♀ ⚼ ♅	20	7	10
☽ p ☉	20	13	57
☽ ☌ ♄ 5N10	20	16	38
☽ △ ♀	20	17	53
☽ 1°S *Antares* *Occultation*	20	24	30
☿ 6° S *Pollux*	20	28	30
♄ ⚺ ♇	21	13	30
☿ 160 ♆	21	16	01
☽ ☌ ♅ 3N59	21	16	42
☽ Perigee	21	18	18
♂ ✶ ♃	21	18	25

JUNE—contd.

	d	*h*	*m*
☽ □ ♃	21	20	07
☉ Solstice	21	22	00
♀ p ♆	21	23	47
♀ ⚼ ♃	21	26	57
☽ △ ☊	21	29	22
☽ v ☉	S22	7	53
☿ v ♄	22	8	07
☽ ☍ ☉ F.M.	22	9	12
☽ M. Dec. 28°S01′	22	15	39
☽ ☌ ♆ 5N45	22	15	40
☽ ✶ ♇	22	16	37
☽ ☌ ♂ 0N32 *Occultation*	23	19	05
☉ 160 ♂	23	19	16
☽ ✶ ♃	23	19	35
☽ ☍ ☿	23	28	07
☽ □ ☊	23	28	39
☿ □ ☊	24	11	04
☽ ✶ ♄	24	15	47
☽ □ ♇	24	16	02
☽ p ☉	24	18	23
☽ ☍ ♀	24	25	48
♄ ⚺ ♆	25	5	30
☽ ✶ ♅	25	17	19
♀ 160 ♂	25	18	40
☿ Gt. Elong 25E20	25	25	31
♀ p ♄	25	25	43
☽ ✶ ☊	26	6	19
☉ 150 ♄	26	12	18
☉ ☍ ♆	26	13	33
☽ □ ♄	26	18	28
☉ △ ♇	26	18	33
☽ ✶ ♆	26	18	34
☽ △ ☉	26	18	51
☽ △ ♇	26	18	55
☽ □ ♅	27	22	04
☽ ✶ ♂	27	24	20
☽ ☌ ♃ 1N54	27	27	05
☿ Node S	28	9	22
♀ 80 ♇	28	12	42
☽ △ ☿	28	20	26
☽ △ ♄	28	25	10
☽ □ ♆	28	25	24
☽ Equat N	28	25	43

JUNE—concld.

	d	h	m
☽ □ ☉ S	29	6	23
☽ △ ♀	29	24	29
☽ △ ♅	30	6	55
☽ □ ♂	30	8	27
☽ ☌ ☊	30	22	10

July

	d	h	m
♅ ∠ ♇	1	5	30
☽ □ ☿	1	10	35
☉ p ♅	1	11	20
☽ △ ♆	1	12	02
☽ ☍ ♇	1	12	37
☉ Q ☊	1	16	53
☽ * ☉	1	22	35
☉ 160 ♅	1	23	00
☿ △ ♄	2	5	30
♀ ⚼ ♆	2	13	17
☿ 150 ♆	2	1	25
☽ □ ♀	2	18	48
☽ △ ♂	2	19	21
☉ v ♅	2	21	12
♀ 150 ♂	2	28	34
♀ △ ♅	2	23	49
☽ * ♃	2	25	12
☿ ⚼ ♅	2	26	05
☽ □ ♇	2	29	01
☽ P ☉	3	17	51
♂ ⊻ ♅	3	22	38
☽ ☍ ♄	3	24	09
☽ * ☿	3	26	17
☽ Apogee	4	13	32
☽ V ☉	4	27	21
Helio ☿ ☌ ♄	*5*	6	13
☽ ☍ ♅	5	7	31
Q ♇	5	10	01
☽ * ♀	5	14	13
☽ □ ♃	5	14	14
♀ 150 ♃	5	14	19
☉ Apogee	5	15	50
☽ * ☊	5	22	24
♂ ∠ ♄	S6	7	2
☽ ☍ ♆	6	13	09
☽ M. Dec. 28°N0′	6	13	24
☽ △ ♇	6	13	[illegible]
☉ [illegible] ♀	6	23	30
☽ ☌ ☉ N.M.	7	10	25
☽ ☍ ♂	7	7	40
☿ v ♇	7	22	1

JULY—contd.

	d	h	m
☽ △ ♃	7	26	17
☽ □ ☊	8	9	18
♀ △ ☊	8	16	46
☿ Aphelion	8	17	12
☽ △ ♄	8	23	43
☉ 80 ☊	8	23	55
☽ □ ♇	8	25	18
☽ ☌ ☿ 7S43	8	28	55
☽ P ☉	9	11	33
Helio ☿ ☌ ♅	*9*	25	07
☿ Retro.	9	25	57
☽ △ ♅	10	5	51
☉ p ♆	10	8	56
☉ ☍ ♂	10	10	58
☽ △ ☊	10	18	33
☽ ☌ ♀ 2S55	10	24	24
♀ 1°N *Regulus*	11	6	30
☽ □ ♄	11	9	13
☽ △ ♆	11	9	56
☽ * ♇	11	10	53
☉ ⚼ ♄	11	11	06
☉ 150 ♅	11	25	50
☽ △ ♂	12	10	24
☽ □ ♅	12	14	17
☽ * ☉	12	15	22
☽ ☍ ♃	12	21	01
♃ Retro.	12	22	31
♀ ⚼ ♂ S	13	11	43
☽ * ♄	13	16	32
☽ □ ♆	13	17	19
☽ Equat S	13	17	54
☽ * ☿	13	20	43
♂ Q ♇	14	7	30
♀ 160 ♃	14	10	05
☽ ⌐ ♂	14	15	41
☽ * ♅	14	20	25
☽ □ ♄	14	23	40
Helio ☿ ☌ ♆	*14*	24	23
☽ _ ☉	14	25	40
☽ ☍ ☊	15	7	57
☽ △ ♆	15	9	02
♇ Direct	15	11	54
♀ V ☊	1	17	1
☉ ∖ ♃	15	[illegible]	[illegible]
☽ * ♇	15	21	59
☽ * ♆	15	22	[illegible]
☽ ☌ ♇	15	23	14
☽ * ♀	15	23	20

JULY—contd.

	d	h	m
☽ □ ☿	15	24	09
☿ ⊻ ♀	16	6	44
♂ Nearest ⊕	16	16	29
☽ * ♂	16	18	27
☉ 160 ♆	16	23	24
☿ □ ♇	16	27	01
☽ △ ♃	17	6	13
☽ △ ☉	17	8	35
☽ p ☉	17	9	27
☽ △ ☿	17	23	04
☽ ☌ ♄ 5N09	17	23	39
☿ ⚼ ♅	17	25	38
☽ v ☉	17	26	18
☽ □ ♀	18	5	48
☿ 150 ♆	18	8	19
☽ 1°S *Antares* *Occultation*	18	9	30
☉ □ ☊	18	16	45
☽ ☌ ♅ 3N58	18	24	57
☿ △ ♄	18	28	48
☽ □ ♃	19	7	06
☽ △ ☊	19	11	21
☉ v ♄	19	20	56
☽ ☌ ♆ 5N46	19	24	46
☽ Perigee	19	25	01
☽ M. Dec. 28°S13′	19	25	10
☽ * ♇	19	25	56
☽ △ ♀ S	20	10	02
☽ ☌ ♂ 0S55 *Occultation*	20	18	16
♀ ⚼ ☊	20	23	21
☽ * ♃	21	7	07
☽ □ ☊	21	10	58
☽ ☍ ☉ F.M.	12	16	10
Helio ☿ ☌ ♂	*21*	20	21
☽ ☍ ☿	21	21	23
☽ * ♄	21	24	09
☿ 40 ♀	21	25	43
☽ □ ♇	21	26	13
☽ p ☉	22	21	35
☽ * ♅	22	25	46
☽ * ☊	23	11	43

JULY—concld.

	d	h	m
♀ 80 ♄	23	16	26
☉ ☌ ☿ Inf.	23	16	41
☽ △ ♇	23	23	15
☽ □ ♄	23	26	02
☽ ✱ ♆	23	26	52
♀ △ ♂	24	6	23
☿ ∠ ♀	24	20	18
☽ ✱ ♂	24	20	23
☽ ☍ ♀	24	21	53
☽ □ ♅	24	29	18
☽ ☌ ♃ 1N28	25	12	05
☽ △ ☿	25	23	23
☽ △ ☉	26	6	39
☽ △ ♄	26	7	26
☽ □ ♆	26	8	21
☽ Equat N	26	9	05
☉ △ ♄	26	16	40
☉ 160 ♂	26	19	56
☽ □ ♂	26	25	45
☉ 150 ♆	26	28	40
☉ ⚼ ♅ S	27	7	34
♂ 40 ♄	27	12	05
☽ △ ♅	27	12	54
☽ ☌ ☊	27	23	56
☉ ⌐ ♇	27	28	13
☽ □ ☿	28	5	41
♀ □ ♅	28	16	05
☽ △ ♆	28	17	59
☽ ☍ ♇	28	19	47
☉ p ♄	28	20	16
☽ □ ☉	28	21	04
☿ □ Node	29	24	00
♀ ∠ ♇	29	10	40
☽ △ ♂	29	12	04
☽ P ☉	29	20	45
☿ v ♄	29	24	53
♀ p ♃	29	26	24
☽ △ ♀	29	27	17
☽ ✱ ♃	30	7	21
☽ V ☉	30	9	15
☽ ✱ ☿	30	15	31
♀ Q ♄	30	20	03
☉ ⚼ ♃	30	25	16
☽ ☍ ♄	30	29	08
Helio ♀ ☌ ♄	*31*	10	09
☽ ✱ ☉	31	14	49
♀ ☍ ♃	31	21	51
☽ Apogee	31	26	49

August

	d	h	m
☽ ☍ ♅	1	12	58
☽ □ ♃	1	19	32
☽ □ ♀	1	22	12
☽ ✱ ☊	1	23	56
♀ 150 ☊	2	16	35
☽ ☍ ♆	2	18	43
☽ M. Dec. 26°N06′.	2	19	20
♀ P ♇	2	19	39
☽ △ ♇	2	20	45
♀ 40 ♇	2	26	06
☿ Direct S	3	6	11
☽ ☍ ♂	3	11	29
☉ P ☿	3	14	05
☿ ✱ ♀	3	27	34
☽ △ ♃	4	7	24
☽ □ ☊	4	10	48
☽ ☌ ☿ 6S27	4	14	45
☽ ✱ ♀	4	15	49
Helio ☿ ☌ ♃	4	17	50
☉ 150 ♂	4	18	15
☽ △ ♄	4	28	53
☽ □ ♇	5	7	56
♀ Node S	5	14	00
☽ ☌ ☉ N.M.	5	24	06
☽ △ ♅	6	10	35
♀ 80 ♅	6	17	19
☽ △ ☊	6	19	38
☽ P ☉	6	25	30
♄ Direct	7	10	20
☽ □ ♄	7	13	57
☽ △ ♆	7	14	36
☽ ✱ ♇	7	16	59
☉ 80 ♇	7	17	30
♀ Equat S	7	17	30
☽ △ ♂	8	5	46
Helio ♀ ☌ ♅	8	9	50
☉ ∠ ♀	8	13	50
☽ □ ♅	8	18	33
☽ ☍ ♃	8	24	23
♂ V ♅	9	5	30
☽ ✱ ☿	9	11	38
☽ ☌ ♀ 2S28	9	18	49
☽ ✱ ♄	9	21	06
☽ □ ♆	9	21	39
☽ Equat S	9	22	34
☽ □ ♂ S	10	12	11
♀ 160 ☊	10	21	22
☽ ✱ ☉	10	23	34

AUGUST—contd,

	d	h	m
♀ ✱ ♄	10	23	52
☽ ✱ ♅	10	24	44
♀ □ ♆	11	6	16
☽ ☍ ☊	11	8	40
☉ ⚼ ♆	11	12	57
☽ △ ♅	11	16	15
☽ □ ☿	11	20	40
☿ Gt. Elong. 18w56	11	21	34
☽ ✱ ♆	11	26	55
☽ ☌ ♇	11	29	25
♀ p ♇	12	8	56
☽ p ☉	12	9	47
♂ Direct	12	13	16
♀ ⊻ ♇	12	14	47
☽ v ☉	12	15	30
☽ ✱ ♂	12	16	56
☽ □ ☉	13	7	51
☽ △ ♃	13	9	57
☿ 160 ♂	13	11	35
☽ △ ☿	13	28	33
♀ Q ♅	14	5	30
☽ ☌ ♄ 5N15	14	6	02
☽ ✱ ♀	14	12	06
☉ 150 ♃	14	12	15
☽ 6°S *Antares* *Occultation*	14	16	30
♀ △ ♄	14	21	56
☿ 150 ♆	14	25	20
☿ ⚼ ♅	14	28	12
☽ ☌ ♅ 4N03	15	7	42
☽ □ ♃	15	12	07
☽ △ ☉	15	14	01
☽ △ ☊	15	15	05
☉ Q ♇	15	28	40
☉ △ ☊	15	29	07
☿ □ ♇	16	5	30
☽ ☌ ♆ 5N52	16	8	16
☽ M. Dec 28°S11′	16	9	00
☽ ✱ ♇	16	10	49
☽ □ ♀	16	17	54
♀ V ♃	16	17	56
☽ ☌ ♂ 0S30 *Occultation*	16	21	53
☽ Perigee	16	22	08
☿ ⚼ ♃	16	24	29

AUGUST—contd.

	d	h	m
Helio ♀ ☌ ♆	16	25	12
☿ Node N	16	25	30
☽ ✱ ♃ S	17	13	14
☽ □ ☊	17	16	09
♀ P ♃	17	17	03
Helio ⊕ ⊐ ☿	17	26	51
☽ ✱ ♄	18	9	28
♀ 160 ♃	18	11	09
☽ □ ♇	18	12	17
☉ v ♇	18	14	51
☽ ☍ ☿	18	18	26
☽ △ ♀	18	22	58
♀ □ ♂	19	9	52
☽ ✱ ♅	19	10	4[illegible]
☽ ✱ ☊	19	17	31
☽ ☍ ☉ F.M.	19	24	24
☉ ⚼ ♂	20	9	39
Helio ☿ ☍ ♄	20	10	09
☽ □ ♄	20	11	55
☽ ✱ ♆	20	11	55
☽ △ ♇	20	14	50
♄ ⊻ ♆	20	17	30
☽ p ☉	20	17	32
☿ 150 ♂	20	19	00
♀ 80 ♆	20	20	27
☽ ✱ ♂	20	26	56
☽ □ ♅	21	14	17
☿ Perihelion	21	16	50
☽ ☌ ♃ 1N22	21	17	49
Helio ☿ ☍ ♅	22	8	37
☿ ✱ ♀	22	10	53
☿ 80 ♇	22	12	41
☽ □ ♆	22	16	50
☽ △ ♄	22	16	57
☽ Equat N	22	17	43
☽ □ ♂	23	9	26
☽ ☍ ♀	23	16	33
☽ △ ☿	23	18	50
☉ 160 ♃	23	20	38
☽ △ ♅	23	20	58
☽ ☌ ☊	23	27	50
☿ ⚼ ♆ S	24	6	46
☿ △ ♅	24	9	19
Helio ☿ ☍ ♆	24	12	22
☽ P ☉	24	14	53
☽ V ☉	24	17	13
☽ △ ☉	24	21	24
☽ △ ♆	24	25	15
☽ ☍ ♇	24	28	50

AUGUST—contd.

	d	h	m
☿ 150 ♃	25	6	17
♃ ⚼ ♇	25	8	30
☽ △ ♂	25	19	51
♀ ∠ ♄	25	25	17
♀ ✱ ♅	25	25	30
☿ △ ☊	26	7	59
☽ ✱ ♃	26	10	14
☽ □ ☿	26	15	54
☿ Q ♇	26	19	54
☉ △ ♆	26	22	11
Helio ♀ ☍ ♀	26	26	30
☉ □ ♄	26	28	00
♀ 150 ♃	27	12	15
☽ ☍ ♄	27	13	22
☽ □ ☉	27	14	08
♀ Gt.Elong. 46 E05	27	11	17
☿ v ♇	27	19	20
♅ Direct	27	26	47
☉ p ♀	27	27	36
☽ ☌ ♅	28	19	37
☽ Apogee	28	20	1[illegible]
☽ □ ♃	28	22	05
♀ Q ♆	28	22	28
☉ ✱ ♇	28	22	39
☽ △ ♀	28	25	27
☽ ✱ ☊	28	27	07
☿ ⚼ ♂	29	13	12
☽ ✱ ☿	29	16	22
♀ ☍ ☊	29	20	56
♂ 40 ♄	29	25	08
☽ ☍ ♆	29	25	22
☿ 160 ♃	29	26	04
☽ M.Dec. 28°N16'	29	26	24
☽ △ ♇	29	29	26
☽ ✱ ☉	30	8	06
☉ ⚼ ☊	30	20	08
☉ v ♀	30	22	13
☽ ☍ ♂	30	22	31
♂ □ Node.	30	22	49
☽ △ ♃ S	31	9	35
♀ 40 ♄	31	11	43
☽ □ ☊	31	14	39
☽ □ ♀	31	18	27
♀ 5°S *Spica*	31	20	30
♀ 80 ♂	31	21	54
☿ △ ♆	31	22	39
☿ □ Node	31	22	43

AUGUST—concld.

	d	h	m
☉ V ☊	31	28	07
☿ □ ♄	31	28	15

September

	d	h	m
☿ p ♀	1	6	11
Helio ☿ ☍ ♂	1	8	22
☽ △ ♄	1	13	30
☽ □ ♇	1	16	37
♀ v ♀	1	23	15
☿ ✱ ♇	1	24	20
Helio ⊕ ⊐ ♄	2	8	56
☿ ⚼ ☊	2	14	44
☽ △ ♅	2	17	46
☽ △ ☊	2	23	48
☽ ✱ ♀	3	8	25
☿ V ☊	3	17	10
☽ ∧ ♆	3	21	13
☽ ┌ ♄	3	22	20
☽ ✱ ♇	3	25	16
☽ ☌ ☿ 1S53	4	9	45
☽ ☌ ☉ N.M.	4	1[illegible]	40
☽ △ ♂	4	10	01
☽ □ ♅	4	15	19
☽ P ☉	4	25	34
☽ ☍ ♃	4	2[illegible]	4[illegible]
☉ ☌ ☿ Sup.	5	[illegible]3	04
☽ ┌ ♆	5	27	[illegible]0
☽ Equat S	5	28	[illegible]1
☽ ✱ ♄	5	28	45
☿ 80 ♄	6	10	41
☿ ∠ ♀	6	14	[illegible]4
Helio ☿ ☍ ♃	6	20	05
☉ 80 ♄	6	22	31
☽ □ ♂	6	25	43
☽ v ☉	6	26	[illegible]2
☽ p ☉	6	27	58
☽ ✱ ♅ S	7	6	31
☽ ☍ ☊	7	11	30
☿ △ ♂	7	1[illegible]	23
☉ p ♃	7	21	12
☽ ☌ ♀ 3S47	7	27	26
☽ ✱ ♆	8	7	58
☽ ☌ ♇	8	11	56
☿ ☍ ♃	8	18	27
☿ p ♃	8	19	3
☿ □ ♅	8	21	43
♀ Aphelion	8	27	52
☽ ✱ ☉	9	6	22

SEPTEMBER—contd.

	d	h	m
☽ * ♂	9	6	56
☽ △ ♃	9	9	51
☽ * ☿	9	12	19
☉ △ ♂	9	18	28
☉ P ☿	9	18	30
☿ ∠ ♇	9	23	33
☿ 150 ☊	10	11	30
☽ ☌ ♄ 5N2	10	12	57
☿ Q ♄	10	20	35
☽ 1°S *Anatres*			
Occultation	10	22	30
♀ □ ♃	10	24	57
☉ ☍ ♃	10	26	45
♀ * ♆	11	5	30
☽ □ ♃	11	12	22
☽ □ ☉	11	13	11
☽ ☌ ♅ 4N19	11	13	25
☿ 40 ♀	11	14	03
☉ ∠ ♀	11	16	10
☉ □ ♅	11	17	15
♀ ∠ ♅	11	17	15
☽ △ ☊	11	18	17
☽ □ ☿	11	22	49
☽ Perigee	12	5	35
♂ Q ♇	12	9	52
♀ ⊻ ♄	12	12	17
☽ ☌ ♆ 6N0′	12	14	05
☽ M. Dec. 28°S21′	12	14	58
☽ * ♀	12	16	06
☽ * ♇	12	18	14
☿ 40 ♇	12	18	52
♂ * ♃	12	19	26
☽ * ♃	13	14	34
☿ ☌ ♂ 0N55			
Occultation	13	15	14
☽ △ ☉	13	19	32
☉ ∠ ♇	13	20	36
☽ □ ☊	13	20	50
☿ P ♇	13	28	29
♀ ☌ ♇ S	14	7	06
☽ △ ☿	14	8	46
☿ 80 ♅	14	11	16
☉ 150 ☊	14	13	38
☽ * ♄	14	18	6[illegible]
Helio ⊕ □ ♆	14	20	3[illegible]
☽ □ ♇	14	21	03
☽ □ ♀	14	21	50
♆ Direct.	14	25	06

SEPTEMBER—contd.

	d	h	m
♂ ⊻ ♅	14	25	20
☉ Q ♄	15	15	43
☽ * ♅	15	19	10
☿ 160 ☊	15	23	33
☽ * ☊	15	23	39
♀ Q ♂	15	24	17
☿ Equat S	16	12	17
☽ * ♆	16	20	16
☽ □ ♄	16	22	35
☽ △ ♇	16	24	46
☿ □ ♆	16	26	14
☽ △ ♀	16	28	29
♂ ∠ ♄	17	6	38
☽ ☌ ♃ 1N35	17	20	42
☿ * ♄	17	21	45
☽ □ ♅	17	23	52
☽ * ♂	17	25	35
♀ 40 ♅	18	5	30
☉ v ☿	18	7	45
☽ ☍ ☉ F.M.	18	11	04
☿ ⊻ ♇	18	15	41
☿ p ♇	18	20	14
☉ p ☿	18	20	48
☽ p ☉	18	24	26
☽ □ ♆	18	25	37
☉ P ♇	18	26	14
☽ Equat N	18	26	33
☉ 40 ♇	18	27	49
☽ V ☉	18	27	54
☽ △ ♄	18	28	15
☿ Q ♅	18	28	18
☿ 160 ♃	19	7	18
☽ ☍ ☿	19	8	37
☽ △ ♅	20	6	19
☽ □ ♂	20	10	20
☽ ☌ ☊	20	10	47
♀ P ♄	20	15	3[illegible]
♂ □ ☊	20	23	41
☽ △ ♆ S	21	9	49
☽ ☍ ♇	21	15	06
♀ 160 ☊	21	15	06
☿ ⊻ ♀	21	23	36
☽ ☍ ♀	21	25	43
☉ 80 ♅	21	27	26
☽ * ♃	22	10	09
☽ △ ♂	22	22	30
☿ 80 ♆	22	27	15
☉ Equinox	23	13	29
♀ V ♃	23	13	41

SEPTEMBER—concld.

	d	h	m
☽ △ ☉	23	14	50
Helio ♀ ☌ ♂	23	22	20
☿ Node S	24	8	47
☉ 160 ☊	24	14	36
☽ △ ☿	24	22	52
☽ □ ♃	24	23	04
☿ 150 ♃	24	24	20
☽ ☍ ♅	24	28	21
☽ * ☊	25	9	06
☽ Apogee	25	15	32
☿ P ♃	25	18	06
♂ Perihelion	25	19	08
☽ □ ☉	26	8	47
☽ ☍ ♆	26	9	26
☽ M.Dec. 28°N 25′	26	10	19
☽ △ ♇	26	15	14
☉ □ ♆	26	16	51
☿ * ♅	26	17	07
☽ △ ♀	27	8	42
☽ △ ♃	27	12	19
☿ ∠ ♄	27	14	20
☉ p ♇	27	16	30
☽ □ ☊	27	18	07
☽ □ ☿	27	20	10
☽ ☍ ♂	27	27	49
☿ ☍ ☊	27	28	44
☿ Q ♆ S	28	5	46
Helio ⊕ □ ♆	28	15	51
☉ * ♄	28	20	46
☽ △ ♄	26	25	18
☽ * ☉	28	25	42
☽ □ ♇	28	26	55
♀ △ ♃	28	28	16
☉ 160 ♃	29	5	30
♂ V ♄	29	5	3[illegible]
☉ 40 ♀	29	7	11
♀ 2°N *Spica*	29	13	30
☉ ⊻ ♇	29	17	56
☽ □ ♀	29	21	57
☽ △ ♅	29	27	[illegible]7
☽ △ ☊	30	7	[illegible]1
☉ Q ♅	30	1	40
☽ * ☿	30	14	25
♀ P ♆	30	21	30
♂ 40 ♄	30	26	05

October

	d	*h*	*m*
☽ △ ♆	1	6	11
☿ □ ♂	1	10	03
☽ ⊡ ♄	1	10	23
♀ □ Node	1	10	31
☽ ∗ ♇	1	11	42
♀ □ Node	1	14	31
♀ Gt. Brilliancy	1	15	30
♂ 80 ♇	1	23	53
☽ ☍ ♃	1	28	16
Helio ☿ ☌ ♄	*1*	29	13
☽ ∗ ♀	2	7	39
☽ □ ♅	2	10	49
☽ v ☉	2	14	46
☽ p ☉	2	23	16
♃ Q ♆	2	23	30
☽ △ ♂	2	24	40
☽ □ ♆	3	11	50
Helio ♀ ☌ ♃	*3*	12	47
☽ Equat S	3	12	54
☽ ∗ ♄	3	16	13
☽ ☌ ☉ N.M. *Eclipse*	3	24	25
☿ ⚼ ♃	4	5	42
♀ P ♅	4	7	30
☽ ∗ ♅	4	15	16
☿ Aphelion	4	16	27
☽ ☍ ☊	4	18	33
♀ ∠ ♆	4	19	44
☽ □ ♂	S5	6	26
☽ ☌ ☿ 0S23 *Occultation*	5	13	14
☽ ∗ ♆	5	15	23
☽ ☌ ♇	5	20	39
Helio ☿ ☌ ♅	*6*	9	26
☽ △ ♃	6	10	52
☿ ∗ ♆	6	11	30
☽ ☌ ♀ 4S09	6	17	41
☉ 80 ♆	6	21	00
☿ P ♂	6	24	27
☿ ∠ ♅	6	26	17
♄ ⚼ ☊	7	5	30
♀ ⊻ ♅	7	10	00
☽ ∗ ♂	7	10	38
♂ 40 ♅	7	12	28
☽ Perigee	7	15	21
☽ ☌ ♄ 5N30	7	22	11
☽ *Antares* 0S36 *Occultation*	7	28	30

October—contd.

	d	*h*	*m*
☉ 150 ♃	8	9	12
♂ ∠ ♃	8	11	11
☿ ⊻ ♄	8	12	21
☽ □ ♃	8	12	33
☽ ∗ ☉	8	12	49
☿ ☌ ♇	8	19	28
☽ ☌ ♅ 4N25	8	20	08
☽ △ ☊	8	23	09
☉ V ♃	9	8	40
☽ ☌ ♆ 6N5	9	19	48
☽ M. Dec. 28°S26′	9	20	18
♂ P ♅	9	24	42
☽ ∗ ♇	9	25	14
☽ ∗ ☿	9	28	16
☽ ∗ ♃	10	14	36
☽ □ ☉	10	18	58
☿ 40 ♅	10	20	35
♂ 80 ☊	10	22	14
☽ ∗ ♀	10	24	04
☽ □ ☊	10	25	43
Helio ☿ ☌ ♆	*10*	28	14
☽ ☌ ♂ 2N13	11	19	40
☽ ∗ ♄	11	28	09
☿ 160 ☊	11	28	17
☽ □ ♇	11	28	32
☽ □ ☿ S	12	12	55
☽ △ ☉	12	26	36
☽ ∗ ♅	12	26	39
☉ ∗ ♅	12	26	56
☿ 80 ♂	12	27	50
☽ □ ♀	12	28	23
☽ ∗ ☊	13	5	32
☉ P ♃	13	7	54
♀ Q ♂	13	8	09
☽ ∗ ♆	13	27	23
☉ ⊻ ♀	13	29	04
☽ □ ♄	14	9	11
☽ △ ♇	14	9	21
♂ P ♆	14	1[illegible]	42
☿ △ ♃	14	15	02
☉ ☍ ☊	14	18	55
☽ ☌ ♃ 1N54	14	22	33
☽ △ ☿	14	23	24
☽ P ☉	14	26	17
♂ ⊻ ♆	14	27	19
☉ Q ♆	14	28	15
☽ □ ♅	15	8	13
☽ △ ♀	15	10	10

October—contd.

	d	*h*	*m*
☉ ∠ ♄	15	12	37
♂ 40 ♃	15	21	13
♀ Retro.	15	22	01
☽ V ☉	15	23	05
♄ ⊻ ♇	15	23	30
☽ □ ♆	16	9	51
☽ Equat N	16	10	27
☽ ∗ ♂	16	11	11
☽ △ ♄	16	16	15
♂ ∠ ♅	16	25	52
Helio ⊕ □ ☿	*17*	11	53
☽ △ ♅	17	16	00
☽ ☌ ☊	17	18	49
☽ p ☉	17	23	50
☽ ☍ ☉ F.M *Eclipse*	17	24	52
☿ ∠ ♆	18	5	51
☿ P ♄	18	10	57
☽ △ ♆	18	18	34
☽ □ ♂	18	22	42
☽ ☍ ♇	18	25	13
☿ ⊻ ♅	S19	6	16
☽ ∗ ♃	19	14	33
☿ ☌ ♀ 4S23	19	19	36
☽ ☍ ♀	19	27	03
☽ ☍ ☿	19	27	53
Helio ♂ ☌ ♃	*20*	9	08
♀ 150 ☊	20	13	34
☉ 40 ♄	20	26	23
♂ □ ♇	21	7	37
☽ △ ♂	21	12	47
☽ ☍ ♄	21	13	11
☿ P ♂	21	15	54
♂ ∗ ♄	21	22	18
☽ □ ♃	21	25	46
☿ Gt. Elong. 24E18	21	27	24
☿ V ♂	21	29	00
♀ ⊻ ♅	22	5	30
☉ ⚼ ♃	22	10	00
☽ ☍ ♅	22	14	08
☽ ∗ ☊	22	16	35
☿ 40 ♆	22	24	29
☽ △ ☉	23	10	03
☽ Apogee	23	11	07
☽ ☍ ♆	23	18	05
☽ M.Dec. 28°N26′	23	18	12
☽ △ ♇	23	25	17

OCTOBER—concld.

	d	h	m
♂ Q ☊	24	12	50
☽ △ ♃	24	14	06
♀ 80 ♂	24	15	11
☿ □ Node	24	23	16
☽ △ ♀	24	24	58
☽ □ ☊	24	29	10
☽ △ ☿	25	14	45
♀ ∠ ♆	25	17	01
☽ □ ☉	25	27	56
☽ △ ♄	S26	12	50
☽ □ ♇	26	13	33
♂ P ♄	26	14	44
☽ ☍ ♂	26	19	40
☿ P ♆	26	25	40
☽ □ ♀	27	10	23
☉ ⚹ ♆	27	11	36
☽ △ ♅	27	14	20
☽ △ ☊	27	16	17
☽ v ☉	27	25	59
☽ □ ☿	27	29	00
♀ P ♅	28	7	06
☽ △ ♆	28	16	26
☽ ⚹ ☉	28	18	54
☽ p ☉	28	19	07
☉ □ ♅	28	20	48
☽ ⚹ ♇	28	23	15
☽ □ ♄	28	24	45
☽ ☌ ♃	29	11	14
☽ ⚹ ☿	29	16	40
☽ □ ♅	29	22	36
☿ P ♀	29	28	14
☽ ⚹ ☿	30	14	01
☽ □ ♆	30	22	50
☽ Equat S	30	22	57
☉ ☌ ♇	31	6	07
♀ P ♆	31	6	46
☽ ⚹ ♄	31	6	56
♂ ⊻ ♃	31	10	54
☽ △ ♂	31	15	20
☽ ⚹ ♅	31	27	10
☽ ☍ ☊	31	28	35

November

	d	h	m
♂ 40 ♆	1	7	06
☉ ⊻ ♄	1	7	17
☽ ⚹ ♆	1	25	50
☽ P ☉	1	28	50
☽ ☌ ♇	S2	7	59

NOVEMBER—contd.

	d	h	m
☽ ☌ ☉ N.M.	2	11	32
☿ Retro.	2	12	04
Helio ☿ ☌ ♃	2	13	21
♀ □ ♂	2	16	21
☽ △ ♃	2	17	14
☽ ☌ ☿ 3S49	2	19	32
☽ □ ♂	2	19	46
☉ 40 ♅	2	26	58
☽ ☌ ♀ 1N43			
Occultation	3	19	16
☉ 160 ☊	3	19	13
♄ 6° N *Antares*	3	19	30
Helio ☿ ☌ ♂	4	7	24
☽ Perigee	4	7	59
☽ ☌ ♄ 5N33	4	10	49
☽ *Antares* 0S36			
Occultation	4	13	30
☽ □ ♃	4	17	47
☽ ⚹ ♂	4	22	30
☿ △ ♃	4	28	49
☽ ☌ ♅ 4N26	5	5	32
☽ △ ☊	5	6	22
☉ ☌ ♀ Inf.	5	15	46
☉ △ ♃	5	22	25
☽ M.Dec.28°S 24′	5	27	00
☽ ☌ ♆ 6N02	5	27	28
☉ V ♂	6	5	30
☿ P ♄	6	5	30
☽ ⚹ ♇	6	9	40
☽ ⚹ ☿	6	17	07
☽ ⚹ ♃	6	18	38
☽ ⚹ ☉	6	20	04
☿ 80 ♂	7	6	52
☽ □ ☊	7	7	22
☽ ⚹ ☿	7	18	03
☽ □ ♇	8	12	00
☽ ⚹ ♄	8	14	37
♃ Direct	8	14	57
☽ □ ♀	8	17	33
☽ V ☉	8	22	57
♀ 150 ☊	8	25	23
☽ □ ☉	8	26	41
♀ 40 ♅	S 9	8	02
☽ ☌ ♂ 2N51	9	7	07
☿ P ♄	9	8	50
☽ ⚹	9	10	10
☽ ⚹ ☊	9	10	31

NOVEMBER—contd.

	d	h	m
♂ ∠ ♆	9	11	59
☽ □ ☿	9	18	39
☽ P ☉	9	19	27
☉ P ♂	9	22	32
☽ ⚹ ♆	10	9	58
☽ △ ♇	10	16	53
☿ 40 ♆	10	18	56
☽ □ ♄	10	19	55
☽ △ ♀	10	20	21
☽ ☌ ♃ 2N2	10	26	21
♀ ⊻ ♄	10	28	54
☽ △ ☉	11	12	37
☽ □ ♅	11	16	23
☽ ⚹ ♀	11	20	01
☉ ∠ ♆	11	20	24
♂ ⚹ ♅	12	6	10
♂ ⚹ ☊	12	9	17
☉ P ♀	12	14	39
☽ Equat N	12	16	26
☽ □ ♆	12	17	11
☿ □ ♂	12	23	03
☿ Node N	12	24	36
☽ △ ♄	12	27	55
☿ 150 ☊	13	5	30
☿ ⊻ ♅	13	6	21
☉ P ☿	13	6	21
☉ ☌ ☿ Inf.	13	9	50
☉ ⊻ ♅	13	15	11
☉ 150 ☊	13	15	54
☽ ☌ ☊	13	21	03
♂ Q ♄	13	22	07
☽ △ ♅	13	25	03
☽ ⚹ ♂	13	27	13
♅ △ ☊	14	5	30
♀ ☌ ♇	14	6	20
Helio ☿ ☌ ♀	14	10	20
☿ ∠ ♆	14	13	00
♂ V ♇	14	13	07
☿ P ♀	14	21	02
☽ △ ♆	14	26	40
☿ V ♂	15	5	30
☽ ☍ ☿	15	9	10
☽ ☍ ♇	15	10	20
☽ ⚹ ♃	15	20	27
☽ □ ♂	15	24	12
☽ p ☉	15	25	26

NOVEMBER—contd.

	d	h	m
☽ ☍ ☿	15	28	08
☽ □ ♂	S16	17	12
☽ ☍ ☉ F.M.	16	17	42
Helio ☿ ☍ ♄	*16*	19	33
☉ 40 ♆	16	23	24
☿ Perihelion	17	16	04
☿ P ♂	17	19	00
☽ ☍ ♄	17	26	24
☽ □ ♃	18	8	14
Helio ☿ ☍ ♅	*18*	11	50
☽ ✱ ☊	18	22	55
♀ ∠ ♅	18	24	03
☽ ☍ ♅	18	24	07
☽ △ ♂	19	8	49
☽ M.Dec. 28°N20'	19	25	01
☽ ☍ ♆	19	26	42
☽ Apogee	19	27	43
☽ △ ♀	20	5	44
☽ △ ♇	20	10	39
Helio ☿ ☍ ♆	*20*	13	26
☽ △ ♃	20	21	02
☽ △ ☿	20	21	21
☿ △ ♃	21	7	30
☽ □ ☊	21	11	01
☽ △ ☉	23	5	41
☽ v ☉	22	7	57
☿ Direct.	22	14	40
☽ □ ♀	22	17	15
☽ □ ♇	22	23	19
☽ △ ♄	22	28	33
☽ □ ☿	S23	9	11
☽ p ☉	23	15	07
Helio ♀ ♄ ☍	*23*	19	39
☽ △ ☊	23	22	40
☽ △ ♅	23	25	18
☿ △ ♃	24	10	50
☽ ☍ ♂	24	16	02
☽ □ ☉	24	22	20
☉ P ♄	24	25	08
☽ △ ♆	24	26	35
☽ ✱ ♀	24	27	44
☽ ✱ ♇	25	10	08
☽ □ ♄	25	15	26
☽ ☍ ♃	25	19	54
☽ ✱ ☿	25	20	54
♀ Dircet.	26	8	20
☽ □ ♅	26	10	48

NOVEMBER—concld.

	d	h	m
♀ Node N	26	17	25
☉ ⚺ ♀	26	28	41
☽ Equat S	27	8	39
☽ □ ♆	27	10	21
☽ ✱ ☉	27	10	52
☉ ⚺ ♀	27	17	17
☉ □ ☊	27	19	06
☿ □ Node	27	21	57
☽ ✱ ♄	27	22	41
♂ 80 ♄	28	11	51
☽ ☍ ☊	28	13	41
☽ ✱ ♅	28	16	20
☽ △ ♂	29	10	10
☽ ✱ ♆	29	14	08
☽ ☌ ♀ 2N07	29	15	14
☽ ☌ ♇	29	20	42
☽ △ ♃	29	29	28
Helio ♀ ☍ ♅	S *30*	8	15
☿ Gt. Elong. 20w12	30	8	51
☽ ☌ ☿ 5N04	30	11	50
☽ P ☉	30	23	17

December

	d	h	m
☉ ⚺ ♇	1	5	54
☽ □ ♂	1	13	13
♂ Q ♅	1	21	30
☽ ☌ ☉ N. M.	1	22	13
☽ 1°S *Antares Occultation*	1	22	30
☽ ☌ ♄ 5N37	1	26	26
☽ □ ♃	2	5	38
☿ ∠ ♆	2	6	12
☿ 150 ☊	2	10	07
☽ Perigee	2	16	01
☽ ☌ ♅ 4N26	2	18	05
☽ △ ☊	2	18	48
♂ ✱ ♆	2	27	02
♂ ∠ ☊	2	29	01
☽ M. Dec. 28°S18'	3	12	02
☽ ☌ ♆ 5N57	3	14	17
☽ ✱ ♂	3	14	47
☽ ✱ ♀	3	16	22
☽ ✱ ♇	3	20	34
☿ ⚺ ♅	3	29	10

DECEMBER—contd.

	d	h	m
☽ ✱ ♃	3	29	14
☽ V ☉	4	11	53
☽ □ ☊	4	13	56
☽ ✱ ☿	4	19	00
☉ ☌ ♄	4	21	26
☉ P ♆	5	14	30
☽ □ ♀	5	17	46
☽ □ ♇	5	21	13
Helio ☿ ☍ ♃	*5*	21	16
☽ P ☉	5	22	17
☽ ✱ ♄	5	27	17
☽ ✱ ☉	5	29	15
♀ △ ♂	6	7	54
☿ 40 ♆	6	9	49
☽ ✱ ☊	6	15	00
☽ ✱ ♅	6	19	44
☉ □ ♃	6	23	12
☽ □ ☿	6	25	47
♀ ∠ ♅	6	26	50
☽ ✱ ♆	S 7	17	45
☽ △ ♀	7	22	24
☽ ☌ ♂ 2N34	7	23	13
☽ △ ♇	7	24	44
☽ □ ♄	8	7	36
Helio ♀ ☍ ♆	*8*	9	42
☽ ☌ ♃ 1N50	8	10	52
☽ □ ♅	8	24	59
♂ △ ♇	9	5	30
☽ □ ☉	9	13	31
☽ △ ☿	9	13	36
♂ 40 ☊	9	21	06
☽ Equat N	9	21	25
☽ □ ♆	9	24	26
☽ △ ♄	10	15	39
♀ ☌ ♇	10	25	57
☽ △ ☉	10	26	22
☽ ☌ ☊	10	27	47
☽ △ ♅	11	9	48
☉ 40 ♇	11	10	47
☉ 40 ♀	11	19	06
☉ △ ☊	11	19	40
♀ 160 ☊	11	20	13
♀ Gt. Brilliancy	11	25	30
♂ v ☊	11	26	34
☽ △ ♆	12	10	23
☽ ☍ ♇	12	18	12
☽ ☍ ♀	12	19	55
☽ ✱ ♂	12	23	03

DECEMBER—contd.

	d	*h*	*m*
☿ ⊡ ☊	12	27	95
☽ ✱ ♃	13	6	08
☿ ⊻ ♆	13	17	13
Helio ☿ ☍ ♂	*13*	20	25
☽ p ☉	S14	11	30
♂ 80 ♅	14	15	53
♇ 160 ☊	14	20	46
☉ ☌ ♅	14	26	12
☽ ☍ ☿	14	26	18
☽ □ ♂	15	14	43
☽ ☍ ♄	15	15	16
☿ P ♄	15	16	18
☽ □ ♃	15	17	50
☉ 80 ♂	15	21	55
☽ ✱ ☊	15	25	57
♂ □ ♄	15	26	01
☿ 5°N *Antares*	16	6	30
☽ ☍ ♅	16	9	48
♀ ⊻ ♇	16	10	28
☽ ☍ ☉ F.M.	16	12	34
☉ ∠ ♇	16	16	28
☽ M.Dec. 28°N15′	17	6	43
♂ P ♃	17	8	42
☉ V ♆	17	8	56
☽ Apogee	17	10	35
☽ v ☉	17	10	50
☽ ☍ ♆	17	11	02
☉ P ♅	17	13	30
♀ 40 ♅	17	17	11
☽ △ ♇	17	18	58
☉ 80 ♃	17	23	37
☽ △ ♀	17	26	54
☽ △ ♂	18	7	04
☽ △ ♃	18	8	05
☽ □ ☊	18	13	28
♂ ☌ ♃ 0S31	18	27	41
Helio ⊕ □ ♃	*19*	8	27

DECEMBER—contd.

	d	*h*	*m*
♀ ⊻ ♄	19	11	40
☿ ☌ ♄ 1N19	19	17	38
☿ P ♆	19	21	30
☿ ⊻ ♀	19	21	41
☽ p ☉	19	24	36
☽ □ ♇	20	7	34
☽ △ ♄	20	17	24
☽ □ ♀	20	18	57
☽ △ ☿	20	20	35
☿ □ ♃	20	24	18
☽ △ ☊	20	24	48
☿ Node S	S21	8	05
☽ △ ♅	21	11	05
♂ Q ♆	21	12	06
☽ △ ☉	21	24	14
♂ ⊻ ☊	21	25	00
☿ △ ☊	21	28	01
☿ □ ♂	22	6	56
☉ Solstice	22	9	32
☽ △ ♆	22	11	22
♀ △ ♃	22	11	30
☽ ✱ ♇	22	18	55
☿ 40 ♇	22	18	58
☽ □ ♄	22	27	42
☽ ☍ ♃	23	8	27
☽ ✱ ♀	23	9	31
☽ ☍ ♂	23	13	11
☽ □ ♀	23	15	27
☿ P ♅	23	20	16
☽ □ ♅	23	21	33
☉ P ☿	23	26	04
♀ 150 ☊	24	10	32
☽ □ ☉	24	14	47
☽ Equat S	24	16	04
☽ □ ♆	24	20	32
☽ ✱ ♄	25	13	31
☽ ☍ ☊	25	18	36
☿ ☌ ♅ 0N24	25	19	25
☽ ✱ ♅	25	28	31
☉ P ♅	26	5	30
☽ ✱ ☿	26	5	53
☿ ∠ ♇	26	12	30

DECEMBER—concld.

	d	*h*	*m*
☉ ∠ ♀	26	15	30
☿ V ♆	26	16	07
☽ ✱ ☉	26	24	45
☉ Q ♃	26	24	53
☽ ✱ ♆	26	26	00
☉ V ☿	26	26	32
☽ ☌ ♇	27	8	33
☉ ☌ ♆	27	19	34
☽ △ ♃	27	21	08
♀ ∠ ♆	27	26	26
☽ ☌ ♀ 6N41	27	27	24
☿ 80 ♃	27	28	39
☽ △ ♂	S28	5	42
☽ P ☉	28	18	46
☉ V ♅	28	21	20
☽ *Antares* 0S36 *Occultation*	29	10	30
☽ ☌ ♄ 5N47	29	18	59
☽ □ ♃	29	22	10
☽ △ ☊	29	22	22
Helio ☿ ☌ ♄	*29*	28	01
☽ V ☉	30	5	52
♃ ⊻ ☊	30	7	47
☽ □ ♂	30	8	06
☽ ☌ ♅ 4N29	30	8	10
♂ □ ♅	30	9	55
♀ Perihelion	30	14	20
☽ ☌ ☿ 3N47	30	19	56
☽ M. Dec. 28°S16′	30	22	43
☽ ☌ ♆ 5N55	30	27	11
☽ Perigee	30	23	44
☽ ☌ ☉ N.M.	31	8	40
☽ ✱ ♇	31	9	09
♀ ⊻ ♅	31	15	06
☿ Aphelion	31	15	42
☉ ✱ ♇	31	15	54
♂ ⊡ ♇	31	20	17
☽ □ ☊	31	20	50
☽ ✱ ♃	31	21	41

Aspects & Phenomena, 1986—*concld.*

Note —The 'Nonile' aspects which are formed at distances of 40° (1st nonile) 80° (2nd nonile), 120° (3rd nonile or trine) and 160° (4th nonile) are on the basis of one-ninth division of the circle or of twelve *navāṁśas*. When two planets form the 'Nonile' aspect, they are in true conjunction in the *navāṁśa*-chart.

The V-aspects of the Sun and the Moon, used by the ancient Indian astronomers are of two kinds, *viz.*, the *Vyatipāta* aspect when the sum of the tropical longitudes of the Sun and the Moon amounted to 180° (symbol—V), and the *Vaidhṛti* aspect when it amounted to 360° (symbol—v). These aspect mutually between all other planets also have been shown. These two V-aspects like conjunctions and oppositions have a very close affinity with the parallel aspects, the latter generally taking place very near to the former four.

The heliocentric aspects are with reference to the places of planets as may be seen by an observer stationed in the Sun. Of these aspects the conjunctions and oppositions are the most important. When two planets form the opposition aspect heliocentrically, both the planets are at that time invisible to each other having been intervened by the Sun situated between them. In case of conjunctions the outer planet is visible to the inner one, but the inner planet is not visible to the outer. This phenomena is similar to combustion or heliacal setting of planets as we see from the planet earth.

Movement of Major Planets in 1986

Mars moves from Tula to Mina during the year trasiting on January 22. It remains retrograde from June 8 to August 12 and becomes opposition with Sun on July 10. It is in square with Sun on March 12 and again on November 15. It is nearest to the Earth on July 16. It conjoins with Saturn on February 17, Jupiter on December 18, Uranus on March 13 and with Neptune on April 9.

Jupiter moves from Makara to Kumbha during the year transiting on Jan. 25. It remains retrograde from July 12 to Nov. 8. It is combust from Feb. 7 to March 7 conjoining with Sun on Feb. 18. It is in square with Sun on June 12 and again on Dec. 6 and at opposition on Sept. 10.

Saturn remains in Vrischika during the year. It remains retrograde from March 19 to August 7. It is combust from Nov. 19 to Dec. 18, conjoining with Sun on Dec. 4. It is in square with Sun on Feb. 28 and again on Aug. 26 and opposition on May 28.

Uranus remains in Vrischika during the year. It is retrograde from Mar. 27 to Aug. 27. It is in square with Sun on Mar. 13 and Sept. 11, opposition on June 11 and conjunction on Dec. 14.

Neptune remains in Dhanus during the year. It is retrograde from Apr. 7 to Sept. 14. It is in square with Sun on Mar. 26 and Sept. 26, opposition on June 26 and conjunction on Dec. 27.

Pluto remains in Tula during the year. It is retrograde from Feb. 8 to July 15. It is in square with Sun on Jan. 27 and July 27, opposition on Apr. 26 and conjunction on Oct. 31.

Planets at Minimum and Maximum distances, 1986

Planet	*Nearest to the Earth*			*Farthest from the Earth*		
		Distance	Potency		Distance	Potency
Sun	Jan. 2	... 0·983	1·00	July 5	... 1·017	0·97
ercury	Mar. 20	... 0·606	0·90	Jan. 24	... 1·420	0·39
	July 20	... 0·579	0·95	May 22	... 1·323	0·41
	Nov. 12	... 0·676	0·81	Sept. 12	... 1·389	0·39
Venus	Nov. 6	... 0·270	0·98	Jan. 21	... 1·712	0·15
Mars	July 16	... 0·404	0·92		—	—
Jupiter	Sep. 11	... 3·972	0·99	Feb. 18	... 6·011	0·66
Saturn	May 28	... 8·979	0·90	Dec. 4	...10·998	0·73

Note:—(i) The distances are in units of the mean distance of the Sun from the Earth taken as 1·000.

(ii) Potency or power of a planet that it exerts on us is taken as 1·00 when at the minimum possible distance from the Earth and decreases inversely as the distance increases. The least distances adopted are : Sun 0·983 (Jan. 3), Mercury 0·548 (June 8), Venus 0·264 (Jan. 3), Mars 0·372 (Aug. 29), Jupiter 3·951 (Oct. 7) and Saturn 8·039 (Dec. 24).

Advance Ephemeris for 1987

Long. of Planets at 5-30 a.m. I.S.T. on the first day of the month.

Month	र ☉ व			च ☽ न			बु ☿ ध			शु ♀ क्र			म ♂ ग			बृ ♃ गु			श ♄ न			रा ☊ हु (mean)		
	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′	s	°	′
JAN.	8	16	21	8	28	46	8	09	30	7	00	25	11	01	04	10	23	50	7	21	42	11	22	49
FEB.	9	17	54	10	21	07	10	01	09	8	01	46	11	22	43	10	29	37	7	24	49	11	21	11
MAR.	10	16	11	10	28	58	10	13	34	9	03	36	0	12	03	11	05	54	7	26	44	11	19	42
APR.	11	17	04	0	17	15	10	19	52	10	10	17	1	03	10	11	13	21	7	27	29	11	18	03
MAY	0	16	26	1	20	20	0	09	03	11	16	22	1	23	08	11	20	28	7	26	44	11	16	28
JUNE	1	16	19	3	04	37	2	08	50	0	23	54	2	13	23	11	27	07	7	24	48	11	14	49
JULY	2	14	59	4	07	01	2	19	54	2	00	25	3	02	40	0	02	15	7	22	38	11	13	11
AUG.	3	14	33	5	22	54	2	26	24	3	08	26	3	22	26	0	05	2[illegible]	7	21	07	11	11	35
SEPT.	4	14	21	7	12	20	4	25	20	4	16	45	4	12	09	0	05	48	7	20	59	11	09	57
OCT.	5	13	31	8	20	55	6	08	55	5	24	02	5	01	18	0	03	17	7	22	17	11	08	21
NOV.	6	14	20	10	14	20	6	06	24	7	02	38	5	21	16	11	29	13	7	24	52	11	06	43
DEC.	7	14	33	11	22	20	7	12	20	8	09	57	6	10	48	11	26	26	7	28	08	11	05	07
JAN.	8	16	05	1	11	19	8	21	10	9	18	19	7	01	14	11	26	33	8	01	47	11	03	29

	URANUS (♅)			NEPTUNE (♆)			PLUTO (PL)		
	s	°	′	s	°	′	s	°	′
Janusry	7	29	55	8	12	01	6	15	47
May	8	02	41	8	14	12	6	14	52
September	7	29	02	8	11	37	6	14	01
January	8	03	58	8	14	06	6	18	19

ASTOTTARI DASA—Krittikadi & Ardradi

Balance of Daśā by Longitude of Moon at birth.

Nakṣatra	Long. of Moon			Krittikādi Daśā				Ardrādi Daśā			
	s	°	′		y	m	d		y	m	d
1 Aśvinī	0	0	0	Venus	10	6	0	Rahu	6	0	0
2 Bharaṇī	0	13	20		5	3	0		3	0	0
3 Kṛtikā	0	26	40	Sun	6	0	0	Venus	21	0	0
4 Rohiṇī	1	10	0		4	0	0		14	0	0
5 Mṛgaśiras	1	23	20		2	0	0		7	0	0
6 Ārdrā	2	6	40	Moon	15	0	0	Sun	6	0	0
7 Punarvasu	2	20	0		11	3	0		4	6	0
8 Puṣya	3	3	20		7	6	0		3	0	0
9 Aśleṣā	3	16	40		3	9	0		1	6	0
10 Maghā	4	0	0	Mars	8	0	0	Moon	15	0	0
11 P. Phalguni	4	13	20		5	4	0		10	0	0
12 U. Phalguni	4	26	40		2	8	0		5	0	0
13 Hasta	5	10	0	Mercury	17	0	0	Mars	8	0	0
14 Citrā	5	23	20		12	9	0		6	0	0
15 Svātī	6	6	40		8	6	0		4	0	0
16 Viśākhā	6	20	0		4	3	0		2	0	0
17 Anurādha	7	3	20	Saturn	10	0	0	Mercury	17	0	0
18 Jyeṣṭhā	7	16	40		6	8	0		11	4	0
19 Mūla	8	0	0		3	4	0		5	8	0
20 Pūrvāṣāḍha	8	13	20	Jupiter	19	0	0	Saturn	10	0	0
21 Uttarāṣāḍhā	8	26	40		12	8	0		6	8	0
22 Śravaṇa	9	10	0		6	4	0		3	4	0
23 Dhaniṣṭhā	9	23	20	Rahu	12	0	0	Jupiter	19	0	0
24 Śatabhiṣaj	10	6	40		8	0	0		12	8	0
25 P. Bhadrapada	10	20	0		4	0	0		6	4	0
26 U. Bhādrapadā	11	3	20	Venus	21	0	0	Rahu	12	0	0
27 Revatī	11	16	40		15	9	0		9	0	0
1 Aśvinī	12	0	0		10	6	0		6	0	0

Balance of Vimsottari Dasa by Longitude of Moon

Long. of Moon	*Moon in* Mesha, Simha, Dhanus				*Moon in* Vrisha, Kanya, Makara				*Moon in* Mithuna, Tula, Kumbha				*Moon in* Karkata Vrischika, Mina			
° '		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*		*y*	*m*	*d*
0 0	**Ketu**	7	0	0	**Sun**	4	6	0	**Mars**	3	6	0	**Jupiter**	4	0	0
0 20		6	9	27		4	4	6		3	3	27		3	7	6
0 40		6	7	24		4	2	12		3	1	24		3	2	12
1 0		6	5	21		4	0	18		2	11	21		2	9	18
1 20		6	3	18		3	10	24		2	9	18		2	4	24
1 40		6	1	15		3	9	0		2	7	15		2	0	0
2 0		5	11	12		3	7	6		2	5	12		1	7	6
2 20		5	9	9		3	5	12		2	3	9		1	2	12
2 40		5	7	6		3	3	18		2	1	6		0	9	18
3 0		5	5	3		3	1	24		1	11	3		0	4	24
3 20		5	3	0		3	0	0		1	9	0	**Saturn**	19	0	0
3 40		5	0	27		2	10	6		1	6	27		18	6	9
4 0		4	10	24		2	8	12		1	4	24		18	0	18
4 20		4	8	21		2	6	18		1	2	21		17	6	27
4 40		4	6	18		2	4	24		1	0	18		17	1	6
5 0		4	4	15		2	3	0		0	10	15		16	7	15
5 20		4	2	12		2	1	6		0	8	12		16	1	24
5 40		4	0	9		1	11	12		0	6	9		15	8	3
6 0		3	10	6		1	9	18		0	4	6		15	2	12
6 20		3	8	3		1	7	24		0	2	3		14	8	21
6 40		3	6	0		1	6	0	**Rahu**	18	0	0		14	3	0
7 0		3	3	27		1	4	6		17	6	18		13	9	9
7 20		3	1	24		1	2	12		17	1	6		13	3	18
7 40		2	11	21		1	0	18		16	7	24		12	9	27
8 0		2	9	18		0	10	24		16	2	12		12	4	6
8 20		2	7	15		0	9	0		15	9	0		11	10	15
8 40		2	5	12		0	7	6		15	3	18		11	4	24
9 0		2	3	9		0	5	12		14	10	6		10	11	3
9 20		2	1	6		0	3	18		14	4	24		10	5	12
9 40		1	11	3		0	1	24		13	11	12		9	11	21
10 0		1	9	0	**Moon**	10	0	0		13	6	0		9	6	0
10 20		1	6	27		9	9	0		13	0	18		9	0	9
10 40		1	4	24		9	6	0		12	7	6		8	6	18
11 0		1	2	21		9	3	0		12	1	24		8	0	27
11 20		1	0	18		9	0	0		11	8	12		7	7	6
11 40		0	10	15		8	9	0		11	3	0		7	1	15
12 0		0	8	12		8	6	0		10	9	18		6	7	24
12 20		0	6	9		8	3	0		10	4	6		6	2	3
12 40		0	4	6		8	0	0		9	10	24		5	8	12
13 0		0	2	3		7	9	0		9	5	12		5	2	21
13 20	**Venus**	20	0	0		7	6	0		9	0	0		4	9	0
13 40		19	6	0		7	3	0		8	6	18		4	3	9
14 0		19	0	0		7	0	0		8	1	6		3	9	18
14 20		18	6	0		6	9	0		7	7	24		3	3	27
14 40		18	0	0		6	6	0		7	2	12		2	10	6
15 0		17	6	0		6	3	0		6	9	0		2	4	15
15 20		17	0	0		6	0	0		6	3	18		1	10	24
15 40		16	6	0		5	9	0		5	10	6		1	5	3
16 0		16	0	0		5	6	0		5	4	24		0	11	12
16 20		15	6	0		5	3	0		4	11	12		0	5	21
16 40		15	0	0		5	0	0		4	6	0	**Mercur.**	17	0	0
17 0		14	6	0		4	9	0		4	0	18		16	6	27
17 20		14	0	0		4	6	0		3	7	6		16	1	24
17 40		13	6	0		4	3	0		3	1	24		15	8	21
18 0		13	0	0		4	0	0		2	8	12		15	3	18
18 20		12	6	0		3	9	0		2	3	0		14	10	15
18 40		12	0	0		3	6	0		1	9	18		14	5	12
19 0		11	6	0		3	3	0		1	4	6		14	0	9

Long. of Moon	Moon in Meṣa, Siṃha, Dhanus				Moon in Vṛṣa, Kanyā, Makara				Moon in Mithuna, Tula, Kumbha				Moon in Karkaṭa Vṛścika, Mina			
° ′		y	m	d		y	m	d		y	m	d		y	m	d
19 0	VENUS	11	6	0	MOON	3	3	0	RAHU	1	4	6	MERC.	14	0	9
19 20		11	0	0		3	0	0		0	10	24		13	7	6
19 40		10	6	0		2	9	0		0	5	12		13	2	3
20 0		10	0	0		2	6	0	Jupiter	16	0	0		12	9	0
20 20		9	6	0		2	3	0		15	7	6		12	3	27
20 40		9	0	0		2	0	0		15	2	12		11	10	24
21 0		8	6	0		1	9	0		14	9	18		11	5	21
21 20		8	0	0		1	6	0		14	4	24		11	0	18
21 40		7	6	0		1	3	0		14	0	0		10	7	15
22 0		7	0	0		1	0	0		13	7	6		10	2	12
22 20		6	6	0		0	9	0		13	2	12		9	9	9
22 40		6	0	0		0	6	0		12	9	18		9	4	6
23 0		5	6	0		0	3	0		12	4	24		8	11	3
2 20		5	0	0	Mars	7	0	0		12	0	0		8	6	0
23 40		4	6	0		6	9	27		11	7	6		8	0	27
24 0		4	0	0		6	7	24		11	2	12		7	7	24
24 20		3	6	0		6	5	21		10	9	18		7	2	21
24 40		3	0	0		6	3	18		10	4	24		6	9	18
25 0		2	6	0		6	1	15		10	0	0		6	4	15
25 20		2	0	0		5	11	12		9	7	6		5	11	12
25 40		1	6	0		5	9	9		9	2	12		5	6	9
26 0		1	0	0		5	7	6		8	9	18		5	1	6
26 20		0	6	0		5	5	3		8	4	24		4	8	3
26 40	Sun	6	0	0		5	3	0		8	0	0		4	3	0
27 0		5	10	6		5	0	27		7	7	6		3	9	27
27 20		5	8	12		4	10	24		7	2	12		3	4	24
27 40		5	6	18		4	8	21		6	9	18		2	11	21
28 0		5	4	24		4	6	18		6	4	24		2	6	18
28 20		5	3	0		4	4	15		6	0	0		2	1	15
28 40		5	1	6		4	2	12		5	7	6		1	8	12
29 0		4	11	12		4	0	9		5	2	12		1	3	9
29 20		4	9	18		3	10	6		4	9	18		0	10	6
29 40		4	7	24		3	8	3		4	4	24		0	5	3
30 0		4	6	0		3	6	0		4	0	0		0	0	0

PROPORTIONAL PARTS FOR DASA OF PLANETS

(To be subtracted from the balance of *daśā* for increase by minutes of the longitude of moon)

	Ketu (7y)		Venus (20y)		Sun (6y)		Moon (10y)		Mars (7y)		Rāhu (18y)		Jupiter (16y)		Saturn (19y)		Merc. (17y)		
′	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d	m	d	′
1	0	3	0	9	0	3	0	5	0	3	0	8	0	7	0	9	0	8	1
2	0	6	0	18	0	5	0	9	0	6	0	16	0	14	0	17	0	15	2
3	0	9	0	27	0	8	0	14	0	9	0	24	0	22	0	26	0	23	3
4	0	13	1	6	0	11	0	18	0	13	1	2	0	29	1	4	1	1	4
5	0	16	1	15	0	14	0	23	0	16	1	11	1	6	1	13	1	8	5
6	0	19	1	24	0	16	0	27	0	19	1	19	1	13	1	21	1	16	6
7	0	22	2	3	0	19	1	2	0	22	1	27	1	20	2	0	1	24	7
8	0	25	2	12	0	22	1	6	0	25	2	5	1	28	2	8	2	1	8
9	0	28	2	21	0	24	1	11	0	28	2	13	2	5	2	17	2	9	9
10	1	1	3	0	0	27	1	15	1	1	2	21	2	12	2	26	2	17	10
15	1	17	4	15	1	11	2	8	1	17	4	2	3	18	4	8	3	25	15
20	2	3	6	0	1	24	3	0	2	3	5	12	4	24	5	21	5	3	20

Solar Return or *Varṣapraveś*

The moment in each year when the *nirayaṇa* or sidereal longitude of the Sun becomes equal to the longitude of Sun at the time of birth of the native, is the moment of Solar return or Varsapravesh.

Method of calculation :—Write down the day of week at birth (0 for Saturday, 1 for Sunday, etc.) and with it write the birth time reckoned from 6^h A.M. or 0^h Midnight or in any other system of time reckoning. Take from the following table the figures given against the age of the person (completed number of years) and add to the above. The result gives the day of week and the time of Varṣapravesh. The English date for the day of week so obtained will be the same as the date of birth or will be adjacent to it.

Year	*d*	*h*	*m*	Year	*d*	*h*	*m*	Year	*d*	*h*	*m*
1	1	6	9·2	41	2	12	15·7	81	3	18	22·1
2	2	12	18·3	42	3	18	24·8	82	5	0	31·3
3	3	18	27·5	43	5	0	34·0	83	6	6	40·5
4	5	0	36·6	44	6	6	43·1	84	0	12	49·6
5	6	6	45·8	45	0	12	52·3	85	1	18	58·8
6	0	12	55·0	46	1	19	1·5	86	3	1	8·0
7	1	19	4·1	47	3	1	10·6	87	4	7	17·1
8	3	1	13·3	48	4	7	19·8	88	5	13	26·3
9	4	7	22·5	49	5	13	29·0	89	6	19	35·4
10	5	13	31·6	50	6	19	38·1	90	1	1	44·6
11	6	19	40·8	51	1	1	47·3	91	2	7	53·8
12	1	1	49·9	52	2	7	56·4	92	3	14	2·9
13	2	7	59·1	53	3	14	5·6	93	4	20	12·1
14	3	14	8·3	54	4	20	14·8	94	6	2	21·3
15	4	20	17·4	55	6	2	23·9	95	0	8	30·4
16	6	2	26·6	56	0	8	33·1	96	1	14	39·6
17	0	8	35·8	57	1	14	42·3	97	2	20	48·7
18	1	14	44·9	58	2	20	51·4	98	4	2	57·9
19	2	20	54·1	59	4	3	0·6	99	5	9	7·1
20	4	3	3·2	60	5	9	9·7	100	6	15	16·2
21	5	9	12·4	61	6	15	18·9	101	0	21	25·4
22	6	15	21·6	62	0	21	28·1	102	2	3	34·5
23	0	21	30·7	63	2	3	37·2	103	3	9	43·7
24	2	3	39·9	64	3	9	46·4	104	4	15	52·8
25	3	9	49·1	65	4	15	55·6	105	5	22	2·0
26	4	15	58·2	66	5	22	4·7	106	0	4	11·2
27	5	22	7·4	67	0	4	13·9	107	1	10	20·3
28	0	4	16·5	68	1	10	23·0	108	2	16	29·5
29	1	10	25·7	69	2	16	32·2	109	3	22	38·7
30	2	16	34·9	70	3	22	41·4	110	5	4	47·8
31	3	22	44·0	71	5	4	50·5	111	6	10	57·0
32	5	4	53·2	72	6	10	59·7	112	0	17	6·1
33	6	11	2·4	73	0	17	8·9	113	1	23	15·3
34	0	17	11·5	74	1	23	18·0	114	3	5	24·5
35	1	23	20·7	75	3	5	27·2	115	4	11	33·6
36	3	5	29·8	76	4	11	36·3	116	5	17	42·8
37	4	11	39·0	77	5	17	45·5	117	6	23	52·0
38	5	17	48·2	78	6	23	54·7	118	1	6	1·1
39	6	23	57·3	79	1	6	3·8	119	2	12	10·3
40	1	6	6·5	80	2	12	13·0	120	3	18	19·4

N. B.—The result given by the above table may differ by a few minutes from that obtained from equality of longitudes of the Sun at the two epochs, this being due to the perturbations of Sun's longitude caused by the planets.

Ascensional Differences ([illegible])

The following table gives the ascensional differences for different latitudes of place, and different declinations of planets and equatorial stars. These ascensional differences given in minutes of time are rquired in calculating the timings of daily rising and setting of the heavenly bodies at the given locality

Dec. (δ)	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°
Lat. (φ)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
2°	0·3	0·5	0·9	1·1	1·4	1·7	2·0	2·3	2·6	2·9	3·2	3·6	3·9	4·3	4·6
4	0·5	1·1	1·7	2·2	2·8	3·4	4·0	4·6	5·2	5·8	6·5	7·1	7·8	8·5	9·3
6	0·9	1·7	2·5	3·4	4·2	5·1	6·0	6·9	7·8	8·8	9·7	10·7	11·7	12·8	13·9
8	1·1	2·2	3·4	4·5	5·7	6·8	8·0	9·2	10·5	11·7	13·0	14·3	15·7	17·1	18·6
9	1·3	2·5	3·8	5·1	6·4	7·7	9·0	10·4	11·8	13·2	14·7	16·2	17·7	19·3	21·0
10	1·4	2·8	4·2	5·7	7·1	8·6	10·1	11·6	13·1	14·7	16·3	18·0	19·7	21·5	23·4
11	1·5	3·1	4·7	6·3	7·8	9·4	11·1	12·8	14·5	16·2	18·0	19·9	21·8	23·7	25·8
12	1·7	3·4	5·1	6·8	8·6	10·3	12·1	14·0	15·8	17·7	19·7	21·7	23·8	25·9	28·2
13	1·8	3·7	5·6	7·4	9·3	11·2	13·2	15·2	17·2	19·3	21·4	23·6	25·9	28·2	30·6
14	2·0	4·0	6·0	8·0	10·1	12·1	14·2	16·4	18·6	20·8	23·1	25·5	27·9	30·5	33·1
15	2·1	4·3	6·4	8·6	10·8	13·1	15·3	17·6	20·0	22·4	24·9	27·4	30·0	32·8	35·6
16	2·3	4·6	6·9	9·2	11·6	14·0	16·4	18·9	21·4	24·0	26·6	29·3	32·1	35·1	38·1
17	2·4	4·9	7·3	9·8	12·4	14·9	17·5	20·1	22·8	25·5	28·4	31·3	34·3	37·4	40·7
18	2·6	5·2	7·8	10·5	13·1	15·8	18·6	21·4	24·2	27·2	30·2	33·3	36·5	39·8	43·2
19	2·7	5·6	8·3	11·1	13·9	16·8	19·7	22·7	25·7	28·8	32·0	35·3	38·7	42·2	45·9
20	2·9	5·8	8·8	11·7	14·7	17·7	20·8	24·0	27·2	30·4	33·8	37·3	40·9	44·6	48·5
21	3·1	6·1	9·2	12·4	15·5	18·7	22·0	25·3	28·7	32·1	35·7	39·4	43·2	47·1	51·2
22	3·2	6·5	9·7	13·0	16·3	19·7	23·1	20·6	30·2	33·8	37·6	41·4	45·5	49·6	53·9
23	3·4	6·8	10·2	13·7	17·2	20·7	24·3	28·0	31·7	35·5	39·5	43·6	47·8	52·2	56·7
24	3·6	7·1	10·7	14·3	18·0	21·7	25·5	29·3	33·3	37·3	41·4	45·7	50·2	54·8	59·6
25	3·7	7·5	11·2	15·0	18·9	22·7	26·7	30·7	34·8	39·1	43·4	47·9	52·6	57·4	62·5
26	3·9	7·8	11·7	15·7	19·7	23·8	27·9	32·1	36·5	40·9	45·5	50·2	55·0	60·1	65·4
27	4·1	8·2	12·3	16·8	20·6	24·9	29·2	33·6	38·1	42·7	47·5	52·4	57·5	62·9	68·4
28	4·3	8·5	12·8	17·1	21·5	25·9	30·5	35·1	39·8	44·9	49.6	54·8	60·1	65·7	71·5
29	4·4	8·9	13·4	17·9	22·4	27·1	31·8	36·6	41·5	46·5	51·8	57·1	62·7	68·6	74·7
30	4·6	9·3	13·9	18·6	23·4	28·2	33·1	38·1	43·2	48·5	53·9	59·6	65·4	71·5	77·9
31	4·8	9·6	14·5	19·4	24·3	29·3	34·5	39·7	45·0	50·5	56·2	62·1	68·2	74·5	81·2
33	5·2	10·4	15·6	20·9	26·3	31·7	37·3	42·9	48·7	54·7	60·8	67·2	73·8	80·8	88·1
35	5·6	11·2	16·9	22·6	28·4	34·2	40·2	46·3	52·6	59·1	65·7	72·6	79·9	87·4	95·4
40	7	13	20	27	34	41	48	56	63	71	79	88	97	106	116
45	8	16	24	32	41	49	58	67	76	85	95	106	117	128	139
50	10	19	29	39	49	59	69	80	91	103	115	128	142	157	173
55	11	23	35	46	58	71	84	97	111	125	141	159	177	198	221
13° 04′	1·8	3·7	5·6	7·5	9·4	11·3	13·3	15·3	17·3	19·4	21·5	23·7	26·0	28·3	30·8
18 58	2·7	5·5	8·3	11·1	13·9	16·7	19·7	22·6	25·6	28·7	31·9	35·2	38·6	42·1	45·8
23 35	3·3	6·7	10·0	13·4	16·8	20·3	23·8	27·4	31·1	34·8	38·7	42·7	46·8	51·1	55·6
28 39	4·4	8·7	13·2	17·6	22·1	26·7	31·3	36·0	40·9	45·9	51·0	56·3	61·8	67·5	73·6

Rule :—To obtain the rising and setting times of the Sun, Moon, etc. *firstly* find the time of its meridian passage. In case of Sun the apparent noon is the Meridian Passage time. In case of Moon the tabulated M. Pass time is required to be interpolated to the approximate time of its rising or setting by subtraction or addition of about 12 minutes. A star passes the meridian when the sidereal time of the moment becomes equal to the Right Ascension of the star.

Then find the Semi-diurnal Arc which is as follows :—
Semi-diur. Arc = 6*h* ± Asc. diff. [*positive* sign is to be taken when the declination is North, and *negative* sign when the declination is South.]

Local mean time of rising = M. Pass − Semi-diur. Arc.
Local mean time of setting = M. Pass + Semi-diur. Arc.

N.B.—If the latititude of place is South reverse the *sign* of decli. and work.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T.+11m)		Mad. Bang. 13° N 0′ (+9, +20m)		Bombay 18° N 58′ (+39m)		Allahabad 25° N 28′ (+3m)		Delhi 28° N 39′ (+21m)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
January 1	6 15	5 51	6 26	5 41	6 37	5 30	6 50	5 17	6 57	5 11
5	17	53	27	43	38	32	51	19	57	14
9	18	56	29	45	39	35	52	22	58	17
13	20	5 58	29	48	39	38	52	25	58	20
17	21	6 0	30	50	40	40	52	28	58	23
21	21	1	31	52	40	43	51	31	57	26
25	22	3	31	54	40	45	50	34	55	30
29	22	4	30	56	39	47	49	37	54	33
Febry. 2	6 22	6 5	6 30	5 58	6 38	5 50	6 47	5 40	6 52	5 36
6	22	6	29	5 59	36	52	45	43	49	40
10	22	7	28	6 1	35	54	43	46	47	43
14	21	8	27	2	33	56	40	49	43	46
18	20	8	25	3	31	58	37	51	40	49
22	19	9	23	4	28	5 59	34	54	36	51
26	18	9	21	5	25	6 1	30	56	32	54
March 2	6 16	6 9	6 19	6 6	6 23	6 2	6 27	5 58	6 28	5 57
6	14	9	17	6	20	3	23	6 0	24	5 59
10	13	8	14	6	16	5	19	2	20	6 2
14	11	8	12	7	13	6	15	4	15	4
18	9	8	9	7	10	7	11	6	11	6
22	7	7	7	8	7	8	6	8	6	9
26	5	7	4	8	3	9	6 2	10	6 1	11
30	3	6	6 1	8	6 0	10	5 58	11	5 57	13
April 3	6 1	6 6	5 59	6 8	5 57	6 11	5 54	6 13	5 52	6 5
7	5 59	6	56	9	53	11	50	15	48	18
11	57	5	54	9	50	12	46	17	43	20
15	56	5	51	9	47	13	42	19	39	22
19	54	5	49	10	44	14	38	20	35	24
23	52	4	47	10	41	16	35	22	31	27
27	51	4	45	11	39	17	31	24	27	29
May 1	5 50	6 5	5 43	6 11	5 36	6 18	5 28	6 26	5 23	6 31
5	49	5	41	12	34	19	25	28	20	34
9	48	5	40	13	32	21	23	30	17	36
13	47	5	39	14	30	22	20	32	14	39
17	47	6	38	15	29	24	18	34	12	41
21	47	6	37	16	28	25	16	36	10	43
25	46	7	37	17	27	27	15	38	8	46
29	46	8	36	18	26	28	14	40	7	48
June 2	5 46	6 9	5 36	6 19	5 26	6 30	5 13	6 42	5 6	6 50
6	47	10	36	20	26	31	13	44	5	52
10	47	11	37	22	26	33	13	46	5	54
14	48	12	37	23	26	34	13	47	5	55
18	49	13	38	24	27	35	13	48	5	56
22	49	14	39	25	27	36	13	48	5	57
26	50	15	40	25	28	37	14	49	6	57
30	5 51	6 15	5 41	6 26	5 29	6 37	5 16	6 50	5 9	6 58

N.B.—To obtain Indian Standard Time of Sunrise and Sunset, apply to the above the difference between the standard time and the local time of the place. The I. S. T. corrections for the above places are given in brackets.

Local mean time of Sunrise and Sunset

(For all places having the same north latitude as given below)

Date	Colombo 6° N 54′ (I.S.T. +11*m*)		Mad. Bang. 13° N 0′ (+9, +20*m*)		Bombay 18° N 58′ (+39*m*)		Allahabad 25° N 23′ (+3*m*)		Delhi 28° N 39′ (+21*m*)	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*	*h m*
July 4	5 52	6 16	5 42	6 26	5 31	6 37	5 18	6 50	5 10	6 58
8	53	16	43	27	32	37	19	50	12	58
12	55	16	44	27	33	37	21	50	14	57
16	55	16	45	27	35	37	23	49	16	56
20	56	16	46	26	36	36	25	48	18	54
24	56	16	47	26	38	35	26	46	20	53
28	57	16	48	25	39	34	28	44	22	50
August 1	5 57	6 15	5 49	6 24	5 40	6 32	5 30	6 42	5 25	6 48
5	57	14	50	22	42	30	32	40	27	45
9	57	13	50	21	43	28	34	37	29	42
13	57	12	51	19	44	26	36	34	31	38
17	57	11	51	17	45	23	38	31	34	34
21	57	9	52	15	46	20	39	27	36	30
25	57	8	52	12	47	17	41	23	38	26
29	56	6	52	10	48	14	43	19	40	22
Septr. 2	5 56	6 4	5 52	6 7	5 49	6 11	5 44	6 15	5 42	6 17
6	55	2	52	5	50	8	46	11	44	13
10	55	6 0	52	6 2	50	4	47	7	46	8
14	54	5 58	52	5 59	51	6 1	49	6 3	48	6 3
18	53	55	52	56	52	5 57	50	5 58	50	5 58
22	53	53	52	53	52	54	52	54	52	54
26	52	51	53	51	53	50	54	50	54	49
30	52	49	53	48	54	47	55	45	56	44
October 4	5 51	5 47	5 53	5 45	5 55	5 43	5 57	5 41	5 58	5 40
8	51	45	53	43	56	40	5 59	37	6 0	35
12	50	43	53	40	57	37	6 0	33	2	31
16	50	41	54	38	58	34	2	29	5	26
20	50	40	54	36	5 59	31	5	25	7	22
24	50	39	55	34	6 0	28	7	22	10	18
28	50	38	56	32	2	26	9	19	13	15
Novr. 1	5 51	5 37	5 57	5 30	6 4	5 24	6 11	5 16	6 15	5 12
5	51	36	5 58	29	5	22	14	13	18	9
9	52	35	6 0	28	7	20	19	11	21	6
13	53	35	1	27	10	19	22	9	25	4
17	54	35	3	27	12	18	25	7	28	2
21	56	36	5	27	14	17	27	6	31	1
25	57	36	7	27	17	17	28	6	34	5 0
29	5 59	37	9	27	19	17	31	5	37	4 59
Decr. 3	6 1	5 38	6 11	5 28	6 21	5 18	6 34	5 5	6 40	4 59
7	3	40	13	29	24	19	37	6	43	5 0
11	5	41	15	31	26	20	40	6	46	0
15	7	43	18	32	29	21	42	7	49	2
19	9	45	20	34	31	23	44	9	51	3
23	11	47	22	36	33	25	46	11	53	5
27	13	49	24	38	35	27	48	13	55	7
31	6 15	5 51	6 25	5 40	6 37	5 29	6 50	5 16	6 56	5 10

Note :—These timings relate to the coincidence (astronomical or true) of the centre of the Sun with the horizon, without any correction for refraction. Correction for visibility of the upper limb : −3*m* for rise, +3*m* for set.

Local mean time of Moonrise and Moonset, 1986

For latitudes 15°N and 30°N

Date	15° N 0′		30° N 0′	
	Rise	Set	Rise	Set
	h m	h m	h m	h m
Jan. 0	21 21	9 34	21 00	9 58
1	22 14	10 15	22 01	10 31
2	23 07	10 54	23 02	11 03
3	—	11 33	—	11 33
4	0 01	12 12	0 04	12 05
5	0 56	12 54	1 08	12 38
6	1 54	13 40	2 15	13 16
7	2 56	14 31	3 25	14 00
8	4 02	15 29	4 37	14 52
9	5 09	16 32	5 48	15 53
10	6 14	17 38	6 53	17 00
11	7 14	18 43	7 50	18 10
12	8 08	19 41	8 37	19 18
13	8 54	20 41	9 16	20 22
14	9 35	21 31	9 51	21 23
15	10 12	22 24	10 19	22 21
16	10 48	23 11	10 47	23 16
17	11 17	23 58	11 14	—
18	11 56	—	11 41	0 10
19	12 32	0 46	12 11	1 05
20	13 11	1 35	12 43	2 00
21	13 54	2 25	13 20	2 56
22	14 40	3 17	14 03	3 54
23	15 31	4 12	14 52	4 50
24	16 26	5 05	15 47	5 44
25	17 22	5 57	16 47	6 33
26	18 19	6 46	17 49	7 18
27	19 15	7 32	18 52	7 58
28	20 10	8 14	19 55	8 33
29	21 03	8 55	20 57	9 05
30	21 57	9 34	21 59	9 36
31	22 51	10 12	23 01	10 07
Feb. 1	23 48	10 53	—	10 39
2	—	11 37	0 06	11 14
3	0 47	12 25	1 14	11 55
4	1 50	13 18	2 23	12 42
5	2 54	14 17	3 31	13 38
6	3 58	15 20	4 38	14 41
7	4 59	16 25	5 37	15 49
8	5 54	17 27	6 27	16 57
9	6 34	18 26	7 09	18 03
10	7 27	19 21	7 45	19 06
11	8 09	20 13	8 17	20 06
12	8 43	21 02	8 46	21 03
13	9 8	21 50	9 13	21 59
14	9 53	22 3[illegible]	9 41	22 54
15	10 29	23 26	10 09	23 49
Feb. 15	10 29	23 26	10 09	23 49
16	11 06	—	10 41	—
17	11 47	0 16	11 16	0 46
18	12 32	1 08	11 56	1 43
19	13 21	2 01	12 42	2 39
20	14 14	2 54	13 35	3 34
21	15 10	3 47	14 33	4 25
22	16 07	4 37	15 34	5 12
23	17 04	5 25	16 38	5 53
24	18 00	6 09	17 42	6 31
25	18 55	6 51	18 45	7 05
26	19 50	7 31	19 49	7 37
27	20 45	8 11	20 53	8 08
28	21 42	8 52	21 59	8 40
Mar. 1	22 42	9 35	23 06	9 15
2	23 44	10 22	—	9 44
3	—	11 14	0 16	10 39
4	0 47	12 11	1 25	11 32
5	1 51	13 12	2 31	12 31
6	2 51	14 14	3 31	13 37
7	3 48	15 16	4 22	14 43
8	4 37	16 15	5 06	15 49
9	5 22	17 10	5 43	16 52
10	6 02	18 03	6 16	17 53
11	6 39	18 53	6 45	18 51
12	7 15	19 41	7 13	19 47
13	7 49	20 28	7 40	20 43
14	8 25	21 18	8 08	21 38
15	9 02	22 08	8 39	22 35
16	9 42	22 59	9 12	23 32
17	10 25	23 51	9 50	—
18	11 12	—	10 34	0 29
19	12 03	0 44	11 23	1 24
20	12 57	1 37	12 18	2 10
21	13 53	2 2	13 17	3 04
22	14 49	3 15	14 19	3 47
23	15 45	4 01	15 23	4 26
24	16 41	4 43	16 27	5 01
25	17 37	5 24	17 31	5 34
26	18 33	6 05	18 37	6 05
27	19 31	6 46	19 44	6 38
28	20 31	7 2[illegible]	20 53	7 12
29	21 34	8 16	22 04	7 51
30	22 39	9 08	23 10	8 35
31	23 41	10 05	—	9 26
Apr. 1	—	11 05	0 24	10 25
2	0 47	12 08	1 27	11 29

N.B.– The timings relate to the visibility of the upper limb of the Moon on the horizon and are given in L.M.T. and for the central meridian of India (82½° E).

Local mean time of Moonrise and Moonset, 1986

For latitudes 15°N and 30°N

Date	15° N 0'		30° N 0'	
	Rise	Set	Rise	Set
	h m	h m	h m	h m
Apr. 1	—	11 05	0 24	10 25
2	0 47	12 08	1 27	11 29
3	1 44	13 10	2 21	12 35
4	2 35	14 09	3 06	13 41
5	3 21	15 05	3 44	14 43
6	4 01	15 57	4 18	15 44
7	4 39	16 47	4 47	16 42
8	5 14	17 35	5 15	17 38
9	5 43	18 23	5 42	18 33
10	6 23	19 11	6 09	19 29
11	7 00	20 01	6 39	20 25
12	7 38	20 51	7 11	21 22
13	8 20	21 43	7 47	22 19
14	9 06	22 34	8 28	23 15
15	9 55	23 25	9 15	—
16	10 47	—	10 07	0 08
17	11 41	0 19	11 04	0 57
18	12 36	1 07	12 04	1 41
19	13 31	1 52	13 05	2 21
20	14 26	2 34	14 08	2 57
21	15 20	3 16	15 11	3 30
22	16 16	3 56	16 15	4 01
23	17 13	4 36	17 21	4 33
24	18 13	5 19	18 30	5 06
25	19 16	6 05	19 43	5 43
26	20 23	7 02	20 7	6 26
27	21 31	7 55	22 10	7 16
28	22 37	8 54	23 18	8 14
29	23 38	9 56	—	9 19
30	—	11 0[illegible]	0 16	10 26
May 1	0 33	12 04	1 05	11 33
2	1 20	13 03	1 46	12 38
3	2 02	13 54	2 21	13 39
4	2 40	14 44	2 51	14 37
5	3 15	15 32	3 19	15 33
6	3 50	16 20	3 46	16 23
7	4 24	17 07	4 13	17 23
8	4 59	17 56	4 41	18 18
9	5 37	18 46	5 12	9 15
10	6 18	19 37	5 46	20 12
11	7 02	20 30	6 26	21 08
12	7 50	21 22	7 10	22 02
13	8 41	22 14	8 01	22 53
14	9 34	23 02	8 55	23 38
15	10 28	23 48	9 53	—
16	11 21	—	10 53	0 18
17	12 15	0 30	11 53	0 55
May 17	12 15	0 30	11 53	0 55
18	13 08	1 10	12 54	1 27
19	14 01	1 49	13 56	1 58
20	14 56	2 28	14 59	2 29
21	15 53	3 08	16 06	3 01
22	16 54	3 52	17 16	3 35
23	17 59	4 40	18 30	4 15
24	19 00	5 34	19 46	5 01
25	20 18	6 35	20 58	5 56
26	21 21	7 41	22 04	7 00
27	22 23	8 48	22 59	8 10
28	23 15	9 53	23 44	9 20
29	—	10 54	—	10 28
30	0 03	11 49	0 22	11 31
31	0 40	12 41	0 54	12 31
June 1	1 17	13 30	1 23	13 28
2	1 51	14 17	1 50	14 23
3	2 26	15 05	2 16	15 18
4	3 00	15 53	2 41	16 13
5	3 37	16 42	3 14	17 09
6	4 17	17 33	3 47	18 06
7	5 00	18 25	4 25	19 03
8	5 47	19 18	5 08	19 58
9	6 36	20 10	5 57	20 49
10	7 29	20 59	6 50	21 36
11	8 23	21 45	7 47	22 18
12	9 16	22 28	8 46	22 55
13	10 09	23 09	9 46	23 28
14	11 00	23 47	10 45	23 59
15	11 52	—	11 44	—
16	12 45	0 24	12 45	0 28
17	13 39	1 03	13 47	0 58
18	14 36	1 43	14 54	1 30
19	15 38	2 27	16 04	2 06
20	16 44	3 17	17 16	2 48
21	17 53	4 14	18 32	3 38
22	19 02	5 18	19 43	4 38
23	20 07	6 26	20 44	5 46
24	21 01	7 34	21 35	6 58
25	21 53	8 38	22 17	8 10
26	22 36	9 58	22 53	9 17
27	23 17	10 34	23 24	10 21
28	23 51	11 25	23 52	11 20
29	—	12 13	—	12 17
30	0 26	13 01	0 19	13 12
July 1	1 01	13 49	0 47	14 07
2	1 37	14 38	1 16	15 03

N.B.—For Calcutta and eastern India *subtract* 1 min. and for Delhi, Bombay and western India *add* 1 min. to get the corrected L.M.T. for the meridian.

Local mean time of Moonrise and Moonset, 1986

For latitudes 15°N and 30°N

Date	15° N 0′		30°N0′	
	Rise	Set	Rise	Set
	h m	h m	h m	h m
July 1	1 01	13 49	0 47	14 07
2	1 37	14 38	1 16	15 03
3	2 16	15 29	1 48	16 00
4	2 57	16 21	2 24	16 57
5	3 43	17 13	3 06	17 52
6	4 32	18 06	3 52	18 45
7	5 25	18 56	4 45	19 34
8	6 18	19 44	5 43	20 17
9	7 12	20 28	6 41	21 00
10	8 06	21 09	7 40	21 30
11	8 58	21 47	8 40	22 01
12	9 49	22 21	9 38	22 31
13	10 40	23 01	10 37	23 00
14	11 32	23 40	11 38	23 30
15	12 26	—	12 41	—
16	13 24	0 21	13 47	0 03
17	14 26	1 07	14 57	0 40
18	15 32	1 59	16 09	1 25
19	16 40	2 58	17 21	2 19
20	17 46	4 03	18 26	3 22
21	18 47	5 11	19 22	4 33
22	19 41	6 18	20 09	5 46
23	20 28	7 21	20 48	6 56
24	21 09	8 20	21 21	8 03
25	21 47	9 14	21 51	9 06
26	22 23	10 05	22 19	10 05
27	22 59	10 55	22 47	11 03
28	23 35	11 43	23 16	11 59
29	—	12 33	23 47	12 55
30	0 13	13 23	—	13 52
31	0 54	14 15	0 22	14 49
Aug. 1	1 38	15 07	1 02	15 46
2	2 27	16 00	1 47	16 40
3	3 18	16 51	2 28	17 30
4	4 12	17 40	3 34	18 15
5	5 06	18 26	4 33	18 56
6	6 01	19 08	5 33	19 32
7	6 54	19 48	6 33	20 04
8	7 46	20 25	7 33	20 34
9	8 37	21 02	8 32	21 03
10	9 28	21 40	9 32	21 32
11	10 22	22 20	10 24	22 04
12	11 18	23 03	11 38	22 39
13	12 17	23 52	12 45	23 20
14	13 20	—	13 55	—
15	14 25	0 46	15 05	0 09
16	15 31	1 47	16 11	1 07

Date	15°N0′		30°N0′	
	Rise	Set	Rise	Set
	h m	h m	h m	h m
Aug. 16	15 31	1 47	16 11	1 07
17	16 32	2 53	17 10	2 13
18	17 28	3 59	17 59	3 23
19	18 17	5 03	18 41	4 35
20	19 01	6 04	19 17	5 43
21	19 41	7 00	19 49	6 48
22	20 19	7 53	20 18	7 50
23	20 55	8 44	20 46	8 49
24	21 31	9 34	21 15	9 47
25	22 09	10 21	21 46	10 44
26	22 49	11 15	22 19	11 43
27	23 32	12 06	22 58	12 40
28	—	12 59	23 41	13 37
29	0 19	13 52	—	14 32
30	1 10	14 41	0 29	15 21
31	2 03	15 34	1 23	16 11
Sept. 1	2 57	16 21	2 21	16 53
2	3 52	17 04	3 22	17 30
3	4 46	17 45	4 22	18 04
4	5 39	18 24	5 23	18 35
5	6 31	19 02	6 24	19 05
6	7 24	19 40	7 25	19 35
7	8 17	20 19	8 27	20 06
8	9 13	21 02	9 31	20 40
9	10 11	21 49	10 38	21 19
10	11 13	22 41	11 47	22 05
11	12 18	23 39	12 57	22 59
12	13 22	—	14 03	—
13	14 23	0 42	15 03	0 02
14	15 20	1 47	15 54	1 09
15	16 10	2 50	16 37	2 19
16	16 55	3 51	17 14	3 27
17	17 36	4 47	17 47	4 32
18	18 14	5 42	18 17	5 35
19	18 50	6 33	18 45	6 35
20	19 27	7 24	19 14	7 33
21	20 04	8 14	19 44	8 31
22	20 44	9 05	20 16	9 30
23	21 26	9 57	20 53	10 28
24	22 12	10 50	21 34	11 26
25	23 01	11 43	22 20	12 22
26	23 52	12 35	23 12	13 15
27	—	13 25	—	14 04
28	0 46	14 13	0 08	14 48
29	1 40	14 59	1 07	15 27
30	2 34	15 40	2 07	16 02
Oct. 1	3 27	16 19	3 08	16 34

N.B.—From the corrected L.M.T. calculate for the exact latitude of the place by interpolation when between 15°N and 30°N and by extrapolation when outside.

Local mean time of Moonrise and Moonset, 1986

For latitudes 15°N and 30°N

Date	15° N 0′		30° N 0′	
	Rise	Set	Rise	Set
	h m	h m	h m	h m
Oct. 1	3 27	16 19	3 08	16 34
2	4 20	16 57	4 09	17 01
3	5 13	17 36	5 10	17 34
4	6 07	18 15	6 13	18 05
5	7 03	18 58	7 18	18 39
6	8 02	19 44	8 26	19 17
7	9 05	20 36	9 37	20 02
8	10 10	21 31	10 48	20 54
9	11 16	22 36	11 56	21 55
10	12 18	23 40	12 58	23 01
11	13 16	—	13 52	—
12	14 07	0 43	14 37	0 09
13	14 53	1 44	15 15	1 17
14	15 34	2 40	15 45	2 22
15	16 12	3 31	16 18	3 21
16	16 48	4 24	16 46	4 23
17	17 24	5 16	17 14	5 22
18	18 01	6 05	17 43	6 20
19	18 39	6 56	18 15	7 18
20	19 20	7 48	18 49	8 16
21	20 07	8 40	19 29	9 15
22	20 53	9 31	20 13	10 12
23	21 43	10 26	20 03	11 07
24	22 36	11 17	21 57	11 57
25	23 29	12 06	22 54	12 43
26	—	12 51	23 53	13 23
27	0 23	13 33	—	13 59
28	1 15	14 26	0 52	14 31
29	2 07	14 51	1 52	15 02
30	2 59	15 29	2 52	15 31
31	3 52	16 08	3 54	16 01
Nov. 1	4 47	16 49	4 58	16 34
2	5 46	17 31	6 06	17 11
3	6 49	18 25	7 17	17 54
4	7 55	19 22	8 31	18 45
5	9 03	20 25	9 43	19 44
6	10 09	21 31	10 50	20 51
7	11 10	22 36	11 48	22 01
8	12 05	23 35	12 36	23 10
9	12 52	—	13 17	—
10	13 34	0 36	13 51	0 15
11	14 13	1 31	14 21	1 18
12	14 49	2 22	14 49	2 17
13	15 24	3 11	15 17	3 15
14	16 00	4 01	15 45	4 12
15	16 37	4 50	16 15	5 09
16	17 17	5 41	16 48	6 07
Nov. 16	17 17	5 41	16 48	6 07
17	18 00	6 33	17 26	7 05
18	18 47	7 26	18 09	8 03
19	19 37	8 19	18 56	8 59
20	20 29	9 11	19 49	9 51
21	21 21	10 00	20 45	10 35
22	22 14	10 46	21 42	11 20
23	23 06	11 29	22 40	11 57
24	23 57	12 08	23 38	12 30
25	—	12 46	—	13 00
26	0 47	13 22	0 36	13 29
27	1 38	14 00	1 36	13 58
28	2 31	14 38	2 37	14 28
29	3 26	15 21	3 41	15 02
30	4 26	16 09	4 50	15 42
Dec. 1	5 32	17 04	6 04	16 29
2	6 41	18 05	7 19	17 26
3	7 50	19 13	8 31	18 32
4	8 56	20 21	9 36	19 43
5	9 57	21 27	10 30	20 56
6	10 48	22 29	11 15	22 05
7	11 33	23 26	11 52	23 10
8	12 13	—	12 24	—
9	12 50	0 19	12 53	0 12
10	13 25	1 09	13 20	1 10
11	14 01	1 58	13 48	2 07
12	14 37	2 47	14 17	3 03
13	15 16	3 37	14 49	4 01
14	16 58	4 28	15 25	4 58
15	16 43	5 20	16 06	5 56
16	17 32	6 13	16 52	6 53
17	18 23	7 06	17 44	7 46
18	19 16	7 56	18 39	8 35
19	20 09	8 43	19 36	9 18
20	21 01	9 27	20 33	9 56
21	21 51	10 07	21 31	10 30
22	22 40	10 44	22 27	11 01
23	23 30	11 20	23 21	11 29
24	—	11 56	—	11 57
25	0 20	12 32	0 22	12 26
26	1 12	13 11	1 23	12 56
27	2 08	13 55	2 27	13 32
28	3 08	14 45	3 36	14 14
29	4 14	15 42	4 49	15 05
30	5 24	16 47	6 03	16 08
31	6 36	17 56	7 13	17 16
32	7 37	19 06	8 14	18 31

N.B.—The L.M.T. thus obtained for the latitude of the place may now be converted into I.S.T. by inverse application of the local time correction for the place.

Local mean time of Beginning of Lagnas, 1986

(*Subtract* 4 mins. per day after the given date)

DATE	Mesha	Vrisha	Mithuna	Karkata	Simha	Kanya	Tula	Vrischika	Dhanus	Makara	Kumbha	Mina
	h m	*h m*	*h m*	*h m*	*h m*	*h m*	*h . m*	*h m*	*h m*	*h m*	*h m*	*h m*
Jan. 0	12 33	14 13	16 10	18 24	20 40	22 52	25 03	3 21	5 37	7 43	9 30	11 03
15	11 34	13 14	15 11	17 25	19 41	21 53	24 04	2 22	4 38	6 44	8 31	10 04
Feb. 0	10 31	12 11	14 9	16 22	18 38	20 50	23 01	1 19	3 35	5 41	7 28	9 01
15	9 32	11 12	13 10	15 23	17 39	19 51	22 02	24 20	2 36	4 42	6 29	8 02
Mar. 1	8 37	10 17	12 15	14 28	16 44	18 56	21 07	23 21	1 41	3 47	5 34	7 07
16	7 38	9 18	11 16	13 29	15 45	17 57	20 08	22 22	24 38	2 48	4 35	6 08
Apr. 1	6 35	8 15	10 13	2 26	14 42	16 51	19 05	21 19	23 35	1 45	3 32	5 05
16	5 36	7 16	9 14	11 27	13 43	15 55	18 06	20 20	22 36	24 42	2 33	4 06
May 1	4 37	6 17	8 15	0 28	12 41	14 56	17 07	19 21	21 37	23 43	1 31	3 07
16	3 38	5 18	7 16	9 29	11 45	13 57	16 08	18 22	20 38	22 44	24 31	2 08
June 1	2 35	4 15	6 13	8 26	10 42	12 51	15 05	17 19	19 35	21 41	23 28	1 05
16	1 36	3 16	5 14	7 27	9 43	11 55	14 06	16 20	18 36	20 42	22 29	24 02
July 1	24 33	2 17	4 15	6 28	8 44	10 56	13 07	15 21	17 37	19 43	21 30	23 03
16	23 34	1 18	3 16	5 29	7 45	9 57	12 08	14 22	16 38	18 44	20 31	22 04
Aug. 1	22 32	24 11	2 13	4 26	6 42	8 54	11 05	13 20	15 36	17 41	19 28	21 01
16	21 33	23 12	1 14	3 27	5 43	7 55	10 06	12 21	14 37	16 42	18 29	20 02
Sept. 1	20 30	22 9	24 07	2 21	4 40	6 52	9 03	11 18	13 34	15 39	17 26	18 59
16	19 31	21 10	23 08	1 22	3 41	5 53	8 04	10 19	12 35	14 40	16 27	18 00
Oct. 1	18 32	20 11	22 09	24 22	2 42	4 54	7 05	9 20	11 36	13 41	15 28	17 01
16	17 33	19 12	21 10	23 23	1 43	3 55	6 06	8 21	10 37	12 42	14 29	16 02
Nov. 1	16 30	18 10	20 07	22 20	24 37	2 53	5 03	7 18	9 34	11 39	13 26	14 59
16	15 31	17 11	19 08	21 21	23 38	1 54	4 04	6 19	8 35	10 41	12 27	14 00
Dec. 1	14 32	16 12	18 09	20 22	22 39	24 51	3 05	5 20	7 36	9 42	11 28	13 01
16	13 33	15 13	17 10	19 23	21 40	23 52	2 06	4 21	6 37	8 43	10 29	12 03
31	12 34	14 14	16 11	18 25	20 41	22 53	1 07	3 22	5 38	7 44	9 31	11 04

Add 1 min. for 180° E. Longitude, no correction for 90° E.long. and *subtract* 1 min. for 0° Long. and 2 mins. for 90° W. Long.

Correction to the above L.M.T. for latitude of place

LAT.	Mesha	Vrisha	Mithuna	Karkata	Simha	Kanya	Tula	Vrischika	Dhanus	Makara	Kumbha	Mina
	m	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*
+60°	- 48	-109	-149	-132	- 76	- 14	+ 48	+109	+149	+132	+76	+14
50	- 27	- 61	- 80	73	- 44	- 8	+ 27	+ 61	+ 80	+ 73	+44	+ 8
40	- 14	- 32	- 41	- 38	- 23	- 4	+ 14	+ 32	+ 41	+ 38	+23	+ 4
30	- 5	- 11	- 14	- 13	- 8	- 1	+ 5	+ 11	+ 14	+ 13	+ 8	+ 1
23·2	0	0	0	0	0	0	0	0	0	0	0	0
20	+ 3	+ 6	+ 7	+ 6	+ 4	+ 1	- 3	- 6	- 7	- 6	- 4	- 1
+10	+10	+ 21	+ 26	+ 23	+ 14	+ 3	- 10	- 21	- 26	- 23	-14	- 3
0	+17	+ 35	+ 44	+ 39	+ 24	+ 5	- 17	- 35	- 44	- 39	-24	- 5
-10	+24	+ 49	+ 62	+ 55	+ 31	+ 7	- 24	- 49	- 62	- 55	-34	- 7
-20	+31	+ 64	+ 81	+ 72	+ 44	+ 9	- 31	- 64	- 81	- 72	-44	- 9
-30	+39	+ 81	+102	+ 91	+ 56	+ 11	- 39	- 81	-102	- 91	-56	-11
-40	+48	+102	+129	+116	+ 71	+ 14	48	102	-129	-116	-71	-14

Correction Tables for the Beginning of Lagnas

Cities in India

The corrections given in the following table for certain cities in India when applied to the time of beginning of the Lagna (Ascendant) given on the previous page would give the beginning time of that Lagna in I.S.T. at the station.

PLACE	Mesha	Vrisha	Mithuna	Karkata	Simha	Kanya	Tula	Vrischika	Dhanus	Makara	Kumbha	Mina
	m	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*
Ahmedabad	+40	+40	+40	+40	+40	+40	+39	+39	+39	+39	+39	+40
Bangalore	+27	+35	+39	+38	+31	+22	+12	+ 4	0	+ 2	+ 9	+18
Bhopal	+20	+20	+20	+20	+20	+20	+20	+20	+21	+21	+20	+20
Bhubaneswar	−11	− 9	− 7	− 8	−10	−13	−16	−18	−19	−19	−17	−14
Bombay	+42	+45	+47	+46	+43	+40	+36	+32	+30	+31	+34	+38
Calcutta	−23	−23	−22	−22	−23	−23	−24	−24	−25	−25	−24	−24
Chandigarh	+16	+ 9	+ 6	+ 7	+13	+21	+29	+35	+39	+38	+32	+24
Colombo	+23	+36	+42	+38	+28	+14	− 2	−15	−21	−17	− 7	+ 7
Delhi	+17	+12	+ 9	+10	+15	+20	+25	+30	+33	+32	+28	+22
Guwahati	−39	−42	−43	−43	−40	−38	−35	−32	−31	−31	−33	−36
Hyderabad	+20	+25	+28	+27	+23	+17	+12	+ 7	+ 5	+ 6	+10	+15
Jaipur	+24	+21	+19	+19	+22	+26	+30	+33	+35	+34	+31	+28
Lucknow	+ 3	0	− 2	− 1	+ 2	+ 5	+ 9	+12	+14	+13	+11	+ 7
Madras	+16	+24	+29	+27	+20	+11	+ 2	− 6	−11	− 9	− 2	+ 7
Nagpur	+15	+17	+18	+17	+16	+14	+12	+10	+10	+10	+11	+13
Patna	−12	−15	−16	−15	−13	−11	− 9	− 7	− 5	− 6	− 7	−10
Pune	+38	+42	+44	+43	+40	+35	+31	+27	+25	+26	+29	+33
Srinagar	+22	+11	+ 6	+ 8	+17	+28	+40	+50	+56	+54	+45	+33
Trivandrum	+32	+44	+50	+47	+38	+25	+12	0	− 6	− 3	+ 6	+19
Ujjain	+27	+27	+27	+27	+27	+27	+27	+27	+27	+27	+27	+27
Varanasi	− 4	− 6	− 7	− 6	− 5	− 2	0	+ 2	+ 3	+ 2	+ 1	− 2

Foreign Cities

The following time-corrections to the beginning of Lagnas would give the Local (Zonal) standard time of the beginning of the Lagna at the given place.

PLACE	Mesha	Vrisha	Mithuna	Karkata	Simha	Kanya	Tula	Vrischika	Dhanus	Makara	Kumbha	Mina
	m	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*	*m*
Cairo	−11	−17	− 20	− 19	−14	− 7	− 1	+ 5	+ 8	+ 7	+ 2	− 5
Canberra	+49	+97	+121	+109	+69	+17	−39	− 87	−112	−100	−59	− 8
Dhaka	− 2	− 2	− 3	− 3	− 2	− 2	− 1	− 1	− 1	− 1	− 1	− 2
Delhi	+17	+12	+ 9	+ 10	+15	+20	+25	+ 30	+ 33	+ 32	+28	+22
Geneva	+12	−16	− 31	− 25	− 2	+28	+56	+ 84	+100	+ 94	+70	+41
London	−31	−69	− 91	− 83	−50	−10	+30	+ 68	+ 90	+ 81	+48	+ 8
Moscow	−10	−60	− 91	− 78	−34	+17	+68	+117	+148	+135	+91	+40
Paris	+24	− 8	− 26	− 19	+ 8	+42	+75	+107	+125	+119	+91	+57
Peking	+ 1	−17	− 26	− 23	− 8	+11	+28	+ 47	+ 55	+ 52	+37	+19
Islamabad	− 1	−11	− 16	− 14	− 6	+ 6	+16	+ 26	+ 31	+ 30	+21	+10
Tokyo	−28	−41	− 47	− 45	−34	−20	− 8	+ 5	+ 12	+ 10	− 1	−15
Washington D.C.	− 6	−23	− 31	− 29	−15	+ 3	+20	+ 36	+ 45	+ 42	+28	+10

Tables of Ascendants (Nirayana)

The following tables give the ASCENDANT for some places and the TENTH HOUSE for all places, according to the *Nirayana* system, when the Sidereal Time for the given moment is known. The tables, which are correct for the year 1986, may be utilised for a few years past and future without entailing any appreciable amount of error. These tables are applicable for all places on the earth lying on the same geographic latitudes as stated. It must be noted that in finding the sidereal time for a moment, the *local mean time* should be used, and *not* the standard time.

TENTH HOUSE OR ASCENDANT	Tenth House for all places	ASCENDANT FOR					
		Colombo 6° N 54'	Madras Bangalore 13°N04'	Rangoon 16°N47'	Bombay 18°N58'	Calcutta 22°N35'	
	Sid. Time	Sid. Time	Sid. Time	Sid. Time	Sid. Time	Sid. Time	
s	h m s	h m s	h m s	h m s	h m s	h m s	°
0 Mesha 0	1 27 35	19 23 08	19 19 03	19 16 28	19 14 55	19 12 15	0
10	2 05 40	19 59 25	19 53 41	19 50 16	19 47 55	19 44 11	10
20	2 44 48	20 36 54	20 29 38	20 25 05	20 22 19	20 17 35	20
1 Vrisha 0	3 25 06	21 15 42	21 07 05	21 01 41	20 58 25	20 52 46	0
10	4 06 38	21 56 00	21 46 13	21 59 58	21 36 25	21 30 03	10
20	4 49 13	22 37 42	22 27 09	22 20 30	22 16 26	22 09 30	20
2 Mithuna 0	5 32 29	23 20 33	23 09 25	23 02 53	22 58 28	22 51 14	0
10	6 16 03	0 04 02	23 53 00	23 46 05	23 41 51	23 34 35	10
20	6 59 27	0 47 50	0 37 06	0 30 22	0 26 19	0 19 16	20
3 Karkata 0	7 42 06	1 31 22	1 21 22	1 15 05	1 11 17	1 04 43	0
10	8 23 40	2 14 14	2 05 17	1 59 41	1 56 16	1 50 24	10
20	9 04 29	2 56 07	2 48 36	2 43 47	2 40 53	2 35 52	20
4 Simha 0	9 43 55	3 37 11	3 30 54	3 27 15	3 24 55	3 20 53	0
10	10 22 17	4 17 18	4 12 43	4 09 57	4 08 16	4 05 16	10
20	10 59 47	4 56 49	4 53 45	4 52 02	4 50 57	4 49 08	20
5 Kanya 0	11 36 44	5 35 30	5 34 21	5 33 41	5 33 18	5 32 38	0
10	12 13 07	6 14 08	6 14 47	6 15 10	6 15 32	6 15 58	10
20	12 50 17	6 52 53	6 55 23	6 56 51	6 57 46	6 59 23	20
6 Tula 0	13 27 35	7 32 03	7 36 13	7 38 51	7 40 27	7 43 10	0
10	14 05 40	8 11 56	8 17 47	8 21 26	8 23 27	8 27 21	10
20	14 44 47	8 52 47	9 00 08	9 04 41	9 07 27	9 12 11	20
7 Vriscika 0	15 24 45	9 34 36	9 43 13	9 48 37	9 51 53	9 57 32	0
10	16 06 40	10 17 17	10 27 01	10 33 06	10 36 39	10 43 11	10
20	16 49 13	11 00 40	11 11 11	11 18 09	11 21 51	11 28 45	20
8 Dhanus 0	17 32 29	11 44 24	11 55 17	12 02 05	12 06 44	12 13 43	0
10	18 16 03	12 28 02	12 39 06	12 45 57	12 50 12	12 57 16	10
20	18 59 27	13 11 01	13 21 37	13 28 22	13 32 25	13 39 28	20
9 Makara 0	19 42 06	13 52 54	14 02 44	14 09 11	14 12 59	14 19 33	0
10	20 23 50	14 33 35	14 42 34	14 48 11	14 51 56	14 57 28	10
20	21 04 28	15 12 50	15 20 31	15 25 20	15 28 16	15 32 56	20
10 Kumbha 0	21 43 55	15 50 41	15 56 54	16 00 46	16 03 07	16 07 10	0
10	22 22 17	16 27 14	16 31 54	16 34 45	16 36 30	16 39 30	10
20	22 59 47	17 03 17	17 05 50	17 07 39	17 08 45	17 10 38	20
11 Mina 0	23 36 44	17 37 56	17 39 08	17 39 51	17 40 17	17 41 02	0
10	0 13 27	18 12 47	18 12 09	18 11 46	18 11 32	18 11 08	10
20	0 50 17	18 47 42	18 45 19	18 43 50	18 42 56	18 41 23	20
30	1 27 35	19 23 08	19 19 03	19 16 28	19 14 55	19 12 15	30

Example :—Find the Ascendant for Delhi on 21st March, 1986 at 3-33 a.m., I.S.T. Local mean time at the moment is 3*h* 11*m* 52*s* a.m. which is 8*h* 48*m* 8*s* before noon. Sidereal equivalent of 8*h* 48*m*8*s* with the addition of 10 secs. per hour is 8*h* 49*m* 35*s*. Sidereal time at noon on that day is 23*h* 53*m* 56*s*+3*s* (corr. for Delhi)=23*h* 53*m* 59*s*. Hence the sidereal time for the moment is 23*h* 53*m* 59*s*−8*h* 49*m* 35*s*= 15*h* 4*m* 24*s*. Now from the tables the required Ascendant for Delhi is found to be Makara 8° 58′. Similarly with the same sidereal time *viz*., 15*h* 4*m* 24*s*, the Tenth house is obtained as Tula 24° 56′.

ASCENDANTS		ASCENDANT FOR			
		Varanasi Allahabad 29°N19′	Delhi 28°N39′	Simla Chandigr. 31°N06′	Srinagar 34°N06
		Sid. Time	Sid. Time	Sid. Time	Sid. Time
s	°	h m s	h m s	h m s	h m s
0 Mesha	0	19 10 09	19 07 26	19 05 25	19 02 36
	10	19 41 13	19 39 25	19 34 57	19 30 36
	20	20 13 49	20 08 59	20 05 13	20 00 19
1 Vrisha	0	20 48 18	20 42 33	20 38 05	20 32 13
	10	21 24 59	21 18 28	21 13 25	21 06 45
	20	22 04 02	21 56 55	21 51 22	21 44 08
2 Mithuna	0	22 45 30	22 38 06	22 32 18	22 24 44
	10	23 28 49	23 21 21	23 15 32	23 07 55
	20	0 13 41	0 06 28	0 00 50	23 53 28
3 Karkata	0	0 59 29	0 52 47	0 47 33	0 40 42
	10	1 45 44	1 39 44	1 35 3	1 28 56
	20	2 31 53	2 26 45	2 22 46	2 17 34
4 Simha	0	3 17 39	3 13 32	3 10 25	3 06 09
	10	4 02 54	3 59 52	3 57 30	3 54 26
	20	4 47 59	4 45 30	4 44 14	4 42 19
5 Kanya	0	5 31 53	5 31 17	5 30 42	5 30 05
	10	6 16 17	6 16 42	6 17 01	6 17 25
	20	7 00 26	7 02 09	7 03 23	7 04 58
6 Tula	0	7 45 13	7 47 56	7 50 02	7 52 56
	10	8 30 19	8 34 06	8 37 05	8 40 48
	20	9 15 57	9 20 47	9 24 13	9 29 27
7 Vriscika	0	10 02 00	10 07 45	10 12 13	10 18 05
	10	10 48 15	10 54 46	10 59 52	11 06 31
	20	11 34 15	11 41 23	11 46 52	11 54 07
8 Dhanus	0	12 19 28	12 26 52	12 32 40	12 40 04
	10	13 03 09	13 10 36	13 16 24	13 24 03
	20	13 45 03	13 52 16	13 57 54	14 05 17
9 Makara	0	14 24 45	14 31 29	14 36 43	14 43 34
	10	15 02 08	15 08 08	15 12 49	15 18 56
	20	15 37 15	15 42 23	15 46 23	15 51 34
10 Kumbha	0	16 10 23	16 14 30	16 17 43	16 21 53
	10	16 41 52	16 44 54	16 47 16	16 50 20
	20	17 12 07	17 14 16	17 15 31	17 17 27
11 Mina	0	17 41 37	17 42 23	17 42 58	17 43 44
	10	18 10 49	18 10 24	18 10 05	18 09 41
	20	18 40 10	18 38 36	18 37 23	18 35 48
	30	19 10 09	19 07 26	19 05 25	19 02 36

Proportional Parts 10°-degree variation of S. time distributed over each degree						
°	m	m	m	m	m	m
10	26	27	28	29	30	31
1°	3	3	3	3	3	3
2	5	5	6	6	6	6
3	8	8	8	9	9	9
4	10	11	11	12	12	12
5	13	13	14	14	15	15
6	16	16	17	17	18	19
7	18	19	20	20	21	22
8	21	22	22	23	24	25
9	23	24	25	26	27	28
°	m	m	m	m	m	m
10	32	33	34	35	36	37
1°	3	3	3	4	4	4
2	6	7	7	7	7	7
3	10	10	10	11	11	11
4	13	13	14	14	14	15
5	16	16	17	17	18	18
6	19	20	20	21	22	22
7	22	23	24	25	25	26
8	26	26	27	28	29	30
9	29	30	31	31	32	33
°	m	m	m	m	m	m
10	38	39	40	41	42	43
1°	4	4	4	4	4	4
2	8	8	8	8	8	9
3	11	12	12	12	13	13
4	15	16	16	16	17	17
5	19	19	20	20	21	21
6	23	23	24	25	25	26
7	27	27	28	29	29	30
8	30	31	32	33	34	34
9	34	35	36	37	38	39
°	m	m	m	m	m	m
10	44	45	46	47	48	49
1°	4	5	5	5	5	5
2	9	9	9	9	10	10
3	13	14	14	14	14	15
4	18	18	18	19	19	20
5	22	22	23	23	24	24
6	26	27	28	28	29	29
7	31	32	32	33	34	34
8	35	36	37	38	38	39
9	40	40	41	42	43	44

Proportional Logarithms for finding Planets' Places

Min.	DEGREES OF HOURS													Min.
	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	—	1·3802	1·0792	9031	7781	6812	6021	5351	4771	4260	3802	3388	3010	0
1	3·1584	1·3730	1·0756	9007	7763	6798	6009	5341	4762	4252	3795	3382	3004	1
2	2·8573	1·3660	1·0720	8983	7745	6784	5997	5330	4753	4244	3788	3375	2998	2
3	2·6812	1·3590	1·0685	8959	7728	6769	5985	5320	4744	4236	3780	3368	2992	3
4	2·5563	1·3522	1·0649	8935	7710	6755	5973	5310	4735	4228	3773	3362	2986	4
5	2·4594	1·3454	1·0614	8912	7692	6741	5961	5300	4726	4220	3766	3355	2980	5
6	2·3802	1·3388	1·0580	8888	7674	6726	5949	5289	4717	4212	3759	3349	2974	6
7	2·3133	1·3323	1·0546	8865	7657	6712	5937	5279	4708	4204	3752	3342	2968	7
8	2·2553	1·3258	1·0511	8842	7639	6698	5925	5269	4699	4196	3745	3336	2962	8
9	2·2041	1·3195	1·0478	8819	7622	6684	5913	5259	4690	4188	3737	3329	2956	9
10	2·1584	1·3133	1·0444	8796	7604	6670	5902	5249	4682	4180	3730	3323	2950	10
11	2·1170	1·3071	1·0411	8773	7587	6656	5890	5239	4673	4172	3723	3316	2944	11
12	2·0792	1·3010	1·0378	8751	7570	6642	5878	5229	4664	4164	3716	3310	2938	12
13	2·0444	1·2950	1·0345	8728	7552	6628	5866	5219	4655	4156	3709	3303	2933	13
14	2·0122	1·2891	1·0313	8706	7535	6614	5855	5209	4646	4148	3702	3297	2927	14
15	1·9823	1·2833	1·0280	8683	7518	6600	5843	5199	4638	4141	3695	3291	2921	15
16	1·9542	1·2775	1·0248	8661	7501	6587	5832	5189	4629	4133	3688	3284	2915	16
17	1·9279	1·2719	1·0216	8639	7484	6573	5820	5179	4620	4125	3681	3278	2909	17
18	1·9031	1·2663	1·0185	8617	7467	6559	5809	5169	4611	4117	3674	3271	2903	18
19	1·8796	1·2607	1·0153	8595	7451	6546	5797	5159	4603	4109	3667	3265	2897	19
20	1·8573	1·2553	1·0122	8573	7434	6532	5786	5149	4594	4102	3660	3258	2891	20
21	1·8361	1·2499	1·0091	8552	7417	6519	5774	5139	4585	4094	3653	3252	2885	21
22	1·8159	1·2445	1·0061	8530	7401	6505	5763	5129	4577	4086	3646	3246	2880	22
23	1·7966	1·2393	1·0030	8509	7384	6492	5752	5120	4568	4079	3639	3239	2874	23
24	1·7781	1·2341	1·0000	8487	7368	6478	5740	5110	4559	4071	3632	3233	2868	24
25	1·7604	1·2289	0·9970	8466	7351	6465	5729	5100	4551	4063	3625	3227	2862	25
26	1·7434	1·2239	0·9940	8445	7335	6451	5718	5090	4542	4055	3618	3220	2856	26
27	1·7270	1·2188	0·9910	8424	7318	6438	5706	5081	4534	4048	3611	3214	2850	27
28	1·7112	1·2139	0·9881	8403	7302	6425	5695	5071	4525	4040	3604	3208	2845	28
29	1·6960	1·2090	0·9852	8382	7286	6412	5684	5061	4516	4032	3597	3201	2839	29
30	1·6812	1·2041	0·9823	8361	7270	6398	5673	5051	4508	4025	3590	3195	2833	30
31	1·6670	1·1993	0·9794	8341	7254	6385	5662	5042	4499	4017	3583	3189	2827	31
32	1·6532	1·1946	0·9765	8320	7238	6372	5651	5032	4491	4010	3576	3183	2821	32
33	1·6398	1·1899	0·9737	8300	7222	6359	5640	5023	4482	4002	3570	3176	2816	33
34	1·6269	1·1852	0·9708	8279	7206	6346	5629	5013	4474	3994	3563	3170	2810	34
35	1·6143	1·1806	0·9680	8259	7190	6333	5618	5003	4466	3987	3556	3164	2804	35
36	1·6021	1·1761	0·9652	8239	7174	6320	5607	4994	4457	3979	3549	3157	2798	36
37	1·5902	1·1716	0·9625	8219	7159	6307	5596	4984	4449	3972	3542	3151	2793	37
38	1·5786	1·1671	0·9597	8199	7143	6294	5585	4975	4440	3964	3535	3145	2787	38
39	1·5673	1·1627	0·9570	8179	7128	6282	5574	4965	4432	3957	3529	3139	2781	39
40	1·5563	1·1584	0·9542	8159	7112	6269	5563	4956	4424	3949	3522	3133	2775	40
41	1·5456	1·1540	0·9515	8140	7097	6256	5552	4947	4415	3942	3515	3126	2770	41
42	1·5351	1·1498	0·9488	8120	7081	6243	5541	4937	4407	3934	3508	3120	2764	42
43	1·5249	1·1455	0·9462	8101	7066	6231	5531	4928	4399	3927	3501	3114	2758	43
44	1·5149	1·1413	0·9435	8081	7050	6218	5520	4918	4390	3919	3495	3108	2753	44
45	1·5051	1·1372	0·9409	8062	7035	6205	5509	4909	4382	3912	3488	3102	2747	45
46	1·4956	1·1331	0·9383	8043	7020	6193	5498	4900	4374	3905	3481	3096	2741	46
47	1·4863	1·1290	0·9356	8023	7005	6180	5488	4890	4365	3897	3475	3089	2736	47
48	1·4771	1·1249	0·9330	8004	6990	6168	5477	4881	4357	3890	3468	3083	2730	48
49	1·4682	1·1209	0·9305	7985	6975	6155	5466	4872	4349	3882	3461	3077	2724	49
50	1·4594	1·1170	0·9279	7966	6960	6143	5456	4863	4341	3875	3454	3071	2719	50
51	1·4508	1·1130	0·9254	7947	6945	6131	5445	4853	4333	3868	3448	3065	2713	51
52	1·4424	1·1091	0·9228	7929	6930	6118	5435	4844	4324	3860	3441	3059	2707	52
53	1·4341	1·1053	0·9203	7910	6915	6106	5424	4835	4316	3853	3434	3053	2702	53
54	1·4260	1·1015	0·9178	7891	6900	6094	5414	4826	4308	3846	3428	3047	2696	54
55	1·4180	1·0977	0·9153	7873	6885	6081	5403	4817	4300	3838	3421	3041	2691	55
56	1·4102	1·0939	0·9128	7854	6871	6069	5393	4808	4292	3831	3415	3034	2685	56
57	1·4025	1·0902	0·9104	7836	6856	6057	5382	4798	4284	3824	3408	3028	2679	57
58	1·3949	1·0865	0·9079	7818	6841	6045	5372	4789	4276	3817	3401	3022	2674	58
59	1·3875	1·0828	0·9055	7800	6827	6033	5361	4780	4268	3809	3395	3016	2668	59
	0	1	2	3	4	5	6	7	8	9	10	11	12	

oportional Logarithms—contd.

Min.	DEGREES OR HOURS											Min.
	13	14	15	16	17	18	19	20	21	22	23	
0	2663	2341	2041	1761	1498	1249	1015	0792	0580	0378	0185	0
1	2657	2336	2036	1756	1493	1245	1011	0788	0577	0375	0182	1
2	2652	2330	2032	1752	1489	1241	1007	0785	0573	0371	0179	2
3	2646	2325	2027	1747	1485	1237	1003	0781	0570	0368	0175	3
4	2640	2320	2022	1743	1481	1233	0999	0777	0566	0365	0172	4
5	2635	2315	2017	1738	1476	1229	0996	0774	0563	0361	0169	5
6	2629	2310	2012	1734	1472	1225	0992	0770	0559	0358	0166	6
7	2624	2305	2008	1729	1468	1221	0988	0767	0556	0355	0163	7
8	2618	2300	2003	1725	1464	1217	0984	0763	0552	0352	0160	8
9	2613	2295	1998	1720	1459	1213	0980	0759	0549	0348	0157	9
10	2607	2289	1993	1716	1455	1209	0977	0756	0546	0345	0154	10
11	2602	2284	1988	1711	1451	1205	0973	0752	0542	0342	0150	11
12	2596	2279	1984	1707	1447	1201	0969	0749	0539	0339	0147	12
13	2591	2274	1979	1702	1443	1197	0965	0745	0535	0335	0144	13
14	2585	2269	1974	1698	1438	1193	0962	0741	0532	0332	0141	14
15	2580	2264	1969	1694	1434	1190	0958	0738	0529	0329	0138	15
16	2574	2259	1965	1689	1430	1186	0954	0734	0525	0326	0135	16
17	2569	2254	1960	1685	1426	1182	0950	0731	0522	0322	0132	17
18	2564	2249	1955	1680	1422	1178	0947	0727	0518	0319	0129	18
19	2558	2244	1950	1676	1417	1174	0943	0724	0515	0316	0126	19
20	2553	2239	1946	1671	1413	1170	0939	0720	0512	0313	0122	20
21	2547	2234	1941	1667	1409	1166	0935	0716	0508	0309	0119	21
22	2542	2229	1936	1662	1405	1162	0932	0713	0505	0306	0116	22
23	2536	2223	1932	1658	1401	1158	0928	0709	0501	0303	0113	23
24	2531	2218	1927	1654	1397	1154	0924	0706	0498	0300	0110	24
25	2526	2213	1922	1649	1392	1150	0920	0702	0495	0296	0107	25
26	2520	2208	1917	1645	1388	1146	0917	0699	0491	0293	0104	26
27	2515	2203	1913	1640	1384	1142	0913	0695	0488	0290	0101	27
28	2509	2198	1908	1636	1380	1138	0909	0692	0484	0287	0098	28
29	2504	2193	1903	1632	1376	1134	0906	0688	0481	0284	0095	29
30	2499	2188	1899	1627	1372	1130	0902	0685	0478	0280	0091	30
31	2493	2183	1894	1623	1368	1127	0898	0681	0474	0277	0088	31
32	2488	2178	1889	1618	1364	1123	0894	0678	0471	0274	0085	32
33	2483	2173	1885	1614	1359	1119	0891	0674	0468	0271	0082	33
34	2477	2168	1880	1610	1355	1115	0887	0671	0464	0267	0079	34
35	2472	2164	1875	1605	1351	1111	0883	0667	0461	0264	0076	35
36	2467	2159	1871	1601	1347	1107	0880	0663	0458	0261	0073	36
37	2461	2154	1866	1597	1343	1103	0876	0660	0454	0258	0070	37
38	2456	2149	1862	1592	1339	1099	0872	0656	0451	0255	0067	38
39	2451	2144	1857	1588	1335	1095	0869	0653	0448	0251	0064	39
40	2445	2139	1852	1584	1331	1091	0865	0649	0444	0248	0061	40
41	2440	2134	1848	1579	1326	1088	0861	0646	0441	0245	0058	41
42	2435	2129	1843	1575	1322	1084	0858	0642	0438	0242	0055	42
43	2430	2124	1838	1571	1318	1080	0854	0639	0434	0239	0052	43
44	2424	2119	1834	1566	1314	1076	0850	0635	0431	0236	0049	44
45	2419	2114	1829	1562	1310	1072	0847	0632	0428	0232	0046	45
46	2414	2109	1825	1558	1306	1068	0843	0628	0424	0229	0042	46
47	2409	2104	1820	1553	1302	1064	0839	0625	0421	0226	0039	47
48	2403	2099	1816	1549	1298	1061	0835	0622	0418	0223	0036	48
49	2398	2095	1811	1545	1294	1057	0832	0618	0414	0220	0033	49
50	2393	2090	1306	1540	1290	1053	0828	0615	0411	0216	0030	50
51	2388	2085	1802	1536	1286	1019	0825	0611	0408	0213	0027	51
52	2382	2080	1797	1532	1282	1045	0821	0608	0404	0210	0024	52
53	2377	2075	1793	1528	1278	1041	0817	0604	0401	0207	0021	53
54	2372	2070	1788	1523	1274	1038	0814	0601	0398	0204	0018	54
55	2367	2065	1784	1519	1270	1034	0810	0597	0394	0201	0015	55
56	2362	2061	1779	1515	1266	1030	0806	0594	0391	0197	0012	56
57	2356	2056	1774	1510	1261	1026	0803	0590	0388	0194	0009	57
58	2351	2051	1770	1506	1257	1022	0799	0587	0384	0191	0006	58
59	2346	2046	1765	1502	1253	1018	0795	0583	0381	0188	0003	59
	13	14	15	16	17	18	19	20	21	22	23	

Rule:—Add proportional log. of planet's daily motion to log of time from 5-30 A.M., I S. T. and the sum will be the log of the movement required. Add this movement to the given position of planet, if the time be after 5-30 A.M, but subtract if before, and the result will be the planent's true ace at the given moment. (If retrograde subtract for add).

Example :—Required longitude of Moon on 14th April 1986 at 3-12 A.M. I.S.T. Time from 5-30 A.M. (13th) is 21*h* 42*m*, log. of which=0·0438. Moon's daily motion is 11°49′, its log =0·3077. Sum of these two=0·3515 which is log ·of 10° 41′, the required movement. Hence the required longitude of Moon is 1s 10° 21′+10° 41′=1s 21° 02′, *i.e.* *Vrisha* 21° 02′.

LOCAL TIME OF PLACES

The local mean time (LMT.) is required in determining the sidereal time of a moment which is utilised in finding the Ascendant *(Lagna)* etc. The following table gives the latitude and longitude of principal cities and also the Reduction of Indian Standard Time to get the corresponding local mean time. The last set of corrections when applied to the sidereal time as given in the daily Ephemeris will give the sidereal time for 12*h* noon L.M.T. of the place

Cities in India and neighbouring countries using same standard time.

PLACE	Latitude North		Longitude East		Local Time L.M.T. from I. S. T.		Corr. to *Indian* Sid. time	
	°	′	°	′	*m*	*s*	*m*	*s*
Agartala	23	49	91	17	+35	08	−0	06
Agra	27	11	78	02	−17	52	+0	03
Ahmedabad	23	02	72	36	−39	36	+0	07
Ajmer	26	27	74	38	−31	28	+0	05
Akola	20	42	77	02	−21	52	+0	04
Aligarh	27	54	78	04	−17	44	+0	03
Allahabad	25	28	81	52	−2	32	+0	00
Alleppey	9	30	76	23	−24	28	+0	04
Amritsar	31	38	74	53	−30	28	+0	05
Bangalore	12	58	77	36	−19	36	+0	02
Baroda	22	18	73	13	−37	08	+0	06
Bellary	15	10	76	56	−22	16	+0	04
Bhilainagar	21	11	81	20	−4	40	+0	01
Bhopal	23	16	77	25	−20	20	+0	03
Bhubaneswar	20	15	85	50	+13	20	−0	02
Bhuj	23	16	69	48	−50	48	+0	08
Bikaner	28	01	73	19	−36	44	+0	06
Bilaspur (M.P.)	22	05	82	13	−1	08	+0	00
Bolpur (W.B.)	23	40	87	42	+20	48	−0	03
Bombay	18	58	72	50	−38	40	+0	06
Calcutta	22	35	88	23	+23	30	−0	04
Calicut (Kozhikode)	11	15	75	49	−26	44	+0	04
Cannanore	11	52	75	25	−28	36	+0	05
Cape Comorin	8	04	77	34	−19	44	+0	03
Chandigarh	30	44	76	53	−22	28	+0	03
Cochin	9	58	76	15	−25	00	+0	04
Coimbatore	11	00	76	56	−22	16	+0	04
Colombo (Sri Lanka)	6	54	79	52	−10	32	+0	02
Cuddapah	14	28	78	50	−14	40	+0	02
Cuttack	20	29	85	52	+13	28	−0	02
Darjeeling	27	03	88	16	+23	04	−0	04
Dehra Dun	30	19	78	03	−17	48	+0	03
Delhi	28	39	77	13	−21	08	+0	03
Dibrugarh	27	29	94	55	+49	40	−0	08
Durgapur	23	30	87	20	+19	20	−0	03
Dwarka	22	14	68	58	−54	08	+0	09
Eluru	16	43	81	09	−5	24	+0	01
Gangtok (Sikkim)	27	20	88	36	+24	24	−0	04
Gaya	24	48	85	01	+10	04	−0	02
Gorakhpur	26	45	83	22	+3	28	−0	01
Guntur	16	19	80	26	−8	16	+0	01
Guwahati	26	10	91	45	+37	00	−0	06
Gwalior	26	14	78	10	−17	20	+0	03
Haridwar	29	56	78	08	−17	28	+0	03
Hyderabad	17	26	78	27	−16	12	+0	03
Imphal	24	48	93	57	+45	48	−0	07

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Local Time of Places

Place	Latitude North		Longitude East		Local Time L.M.T. from I. S. T.		Corr. to *Indian* Sid. time	
	°	'	°	'	m	s	m	s
Indore ...	22	43	75	51	−26	36	+ 0	04
Jabalpur ...	23	09	79	57	−10	12	+ 0	02
Jaffna (Sri Lanka) ...	9	40	80	00	−10	00	+ 0	02
Jaipur ...	26	55	75	49	−26	44	+ 0	04
Jammu ...	32	43	74	52	−30	32	+ 0	05
Jamshedpur ...	22	48	86	11	+14	44	− 0	02
Jodhpur ...	26	18	73	02	−37	52	+ 0	06
Kanchipuram ...	12	50	79	42	−11	12	+ 0	02
Kandy (Sri Lanka) ...	7	18	80	38	− 7	28	+ 0	01
Kanpur ...	26	29	80	21	− 8	36	+ 0	01
Kathmandu (Nepal)...	27	42	85	12	+10	48	− 0	02
Kodaikanal ...	10	14	77	28	−20	08	+ 0	03
Kohima ...	25	41	94	07	+46	28	− 0	08
Kolhapur ...	16	42	74	14	−33	04	+ 0	05
Kurnool ...	15	50	78	03	−17	48	+ 0	03
Lucknow ...	26	51	80	56	− 6	16	+ 0	01
Madras ...	13	04	80	15	− 9	00	+ 0	01
Madurai ...	9	58	78	10	−17	20	+ 0	03
Mangalore ...	12	52	74	50	−30	40	+ 0	05
Mathura ...	27	28	77	42	−19	12	+ 0	02
Meerut ...	29	01	77	45	−19	00	+ 0	03
Moradabad ...	28	51	78	47	−14	52	+ 0	02
Mysore ...	12	18	76	39	−23	24	+ 0	04
Nagpur ...	21	09	79	05	−13	40	+ 0	02
Naini Tal ...	29	22	79	27	−12	12	+ 0	02
Nasik ...	20	02	73	50	−34	40	+ 0	06
Nellore ...	14	27	80	00	−10	00	+ 0	02
Ootacamund ...	11	24	76	44	−23	04	+ 0	04
Panaji ...	15	29	73	49	−34	44	+ 0	06
Patiala ...	30	19	76	24	−24	24	+ 0	04
Patna ...	25	36	85	08	+10	32	− 0	02
Pondicherry ...	11	56	79	50	−10	40	+ 0	02
Porbandar ...	21	38	69	37	−51	32	+ 0	08
Port Blair ...	11	40	92	46	+41	04	− 0	07
Pune ...	18	31	73	53	−34	28	+ 0	06
Puri ...	19	48	85	50	+13	20	− 0	02
Rajahmundry ...	17	00	81	46	− 2	56	+ 0	00
Rajkot ...	22	18	70	48	−46	48	+ 0	08
Ranchi ...	23	23	85	21	+11	24	− 0	02
Rourkela ...	22	25	84	52	+ 9	28	− 0	02
Sagar (M.P.) ...	23	50	78	50	−14	40	+ 0	02
Shillong ...	25	35	91	53	+37	32	− 0	06
Sholapur ...	17	39	75	55	−26	20	+ 0	04
Siliguri ...	26	44	88	26	+23	44	− 0	04
Simla ...	31	06	77	10	−21	20	+ 0	03
Srinagar ...	34	06	74	48	−30	48	+ 0	05
Surat ...	21	10	72	51	−38	36	+ 0	06
Thimphu (Bhutan) ...	27	32	89	53	+29	32	− 0	05
Tiruchirapalli ...	10	50	78	42	−15	12	+ 0	02
Tirupati ...	13	40	79	20	−12	40	+ 0	02
Trincomalee (S. Lanka)	8	34	81	15	− 5	00	+ 0	01
Trivandrum ...	8	31	77	00	−22	00	+ 0	04
Ujjain ...	23	11	75	46	−26	56	+ 0	04
Varanasi ...	25	19	83	01	+ 2	04	− 0	00
Vellore ...	12	55	79	11	−13	16	+ 0	02
Visakhapatnam ...	17	43	83	19	+ 3	16	− 0	01

Local Time of Places

Foreign Cities

PLACE	Time Zone	Latitude	Longitude	Local time L.M.T. from Zonal Std. Time	Zonal Std. Time from I. S. T.	Corr. to *Indian* Sid. time
	h	° ′	° ′	m s	h m	m s
Chittagong	+ 6	22 21N	91 50E	+ 7 20	+ 0 30	− 0 06
Dhaka	+ 6	23 42N	90 25E	+ 1 40	+ 0 30	− 0 05
Rajshahi	+ 6	24 23N	88 35E	− 5 40	+ 0 30	− 0 04
Rangpur	+ 6	25 45N	89 18E	− 2 48	+ 0 30	− 0 04
Islamabad	+ 5	33 42N	73 10E	− 7 20	− 0 30	+ 0 06
Karachi	+ 5	24 51N	67 01E	−31 56	− 0 30	+ 0 10
Lahore	+ 5	31 35N	74 18E	− 2 48	− 0 30	+ 0 05
Bangkok	+ 7	13 44N	100 30E	−18 00	+ 1 30	− 0 12
Berlin	+ 1	52 32N	13 25E	− 6 20	− 4 30	+ 0 45
Bonn	+ 1	50 44N	7 04E	−31 44	− 4 30	+ 0 50
Buenos Aires	− 3	34 35S	58 20W	−53 20	− 8 30	+ 1 32
Cairo*	+ 2	30 08N	31 34E	+ 6 16	− 3 30	+ 0 34
Canberra	+10	35 19S	149 00E	− 4 00	+ 4 30	− 0 44
Chicago*	− 6	41 53N	87 38W	+ 9 28	−11 30	+ 1 52
Djakarta	+ 7	6 16S	106 53E	+ 7 32	+ 1 30	− 0 16
Dublin	+ 1	53 20N	6 15W	−85 00	− 4 30	+ 0 58
Geneva	+ 1	46 12N	6 09E	−35 24	− 4 30	+ 0 50
Greenwich	0	51 29N	0 00	0 00	− 5 30	+ 0 54
Hanoi	+ 7	21 02N	105 52E	+ 3 28	+ 1 30	− 0 15
Hong Kong*	+ 8	22 18N	114 10E	−23 20	+ 2 30	− 0 21
Kabul	+ 4½	34 33N	69 12E	+ 6 48	− 1 00	+ 0 09
Kuala Lumpur	+ 7½	3 09N	101 43E	−43 08	+ 2 00	− 0 13
London*	0	51 32N	0 05W	− 0 20	− 5 30	+ 0 54
Los Angeles*	− 8	34 03N	118 17W	+ 6 52	−13 30	+ 2 12
Manila	+ 8	14 30N	121 30E	+ 6 00	+ 2 30	− 0 26
Mecca	+ 3	21 25N	39 54E	−20 24	− 2 30	+ 0 28
Mexico	− 6	19 26N	99 01W	−36 04	−11 30	+ 1 59
Mombasa	+ 3	4 00S	39 40E	−21 20	− 2 30	+ 0 28
Moscow	+ 3	55 45N	37 34E	−29 44	− 2 30	+ 0 30
Munich	+ 1	48 08N	11 35E	−13 40	− 4 30	+ 0 46
Nairobi	+ 3	1 18S	36 52E	−32 32	− 2 30	+ 0 30
New York*	− 5	40 43N	74 00W	+ 4 00	−10 30	+ 1 43
Ottawa*	− 5	45 24N	75 43W	− 2 52	−10 30	+ 1 44
Paris	+ 1	48 50N	2 20E	−50 40	− 4 30	+ 0 53
Peking	+ 8	39 55N	116 28E	−14 08	+ 2 30	− 0 22
Penang	+ 7½	5 25N	100 14E	−49 04	+ 2 00	− 0 12
Rangoon	+ 6½	16 47N	96 10E	− 5 20	+ 1 00	− 0 09
Rio de Janeiro	− 3	22 54S	43 12W	+ 7 12	− 8 30	+ 1 23
Rome*	+ 1	41 55N	12 27E	−10 12	− 4 30	+ 0 46
Saigon	+ 8	10 49N	106 41E	−53 16	+ 2 30	− 0 16
San Francisco*	− 8	37 48N	122 25W	− 9 40	−13 30	+ 2 15
Singapore	+ 7½	1 21N	103 54E	−34 24	+ 2 00	− 0 14
Tokyo	+ 9	35 40N	139 33E	+18 12	+ 3 30	− 0 37
Vienna	+ 1	48 12N	16 22E	+ 5 28	− 4 30	+ 0 44
Washington D.C.*	− 5	38 55N	77 04W	− 8 16	−10 30	+ 1 45

*These countries keep summer time or day-light saving time during summer seasons (generally April to October) when the clocks are advanced by one hour. When such time is introduced then first reduce the given time by 1 hour to get the Zonal Standard Time and then apply other corrections as necessary. Some countries have adopted summer time permanently as their Zonal Standard Time and are using it throughout the year; for them no reduction is necessary.

When 5*h* 30*m* is added to the figures under col. (6), then 'Reduction of G.M.T. to Zonal Standard Time', same as given under 'Time Zone', is obtained.

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